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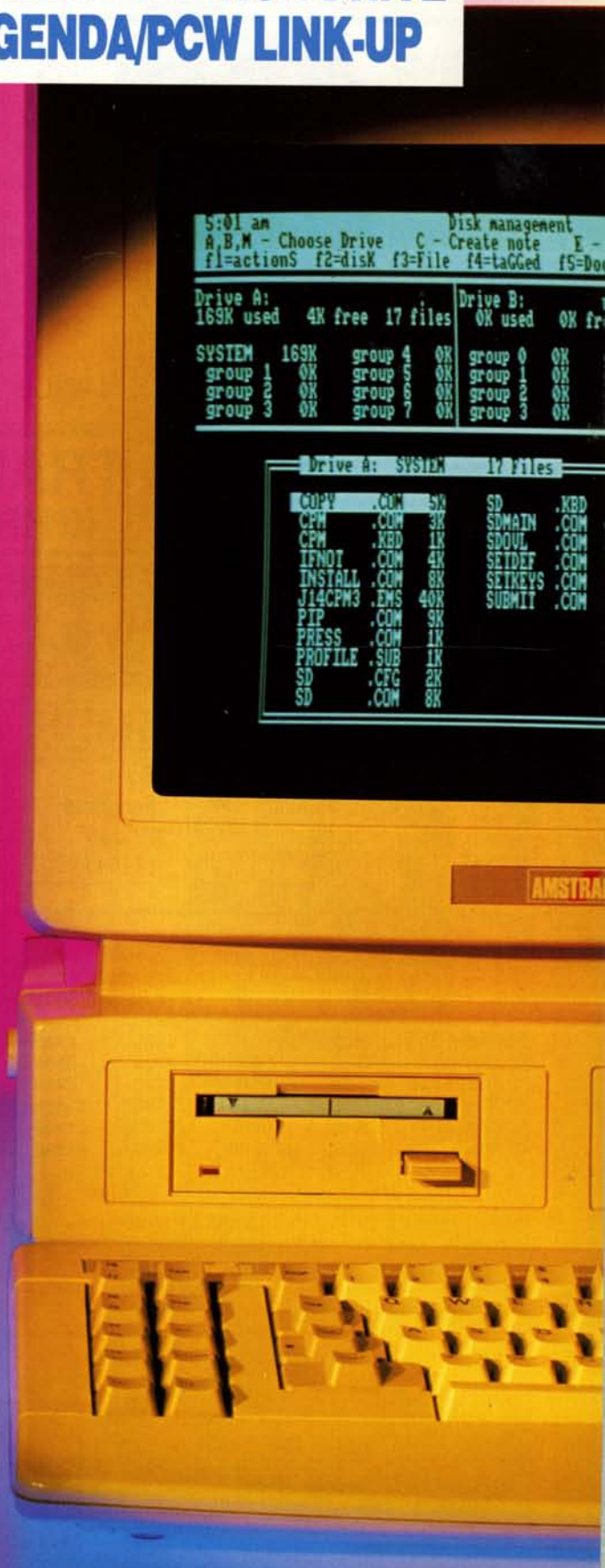
- LATEST 3.5 INCH DRIVE
- AGENDA/PCW LINK-UP



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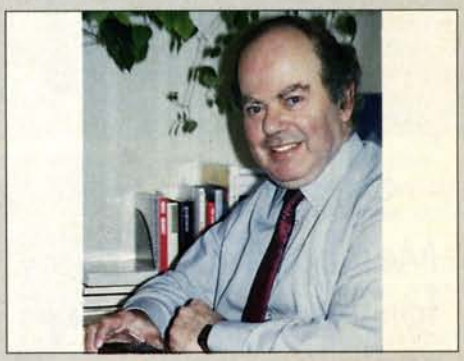

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Designs on you – literally!

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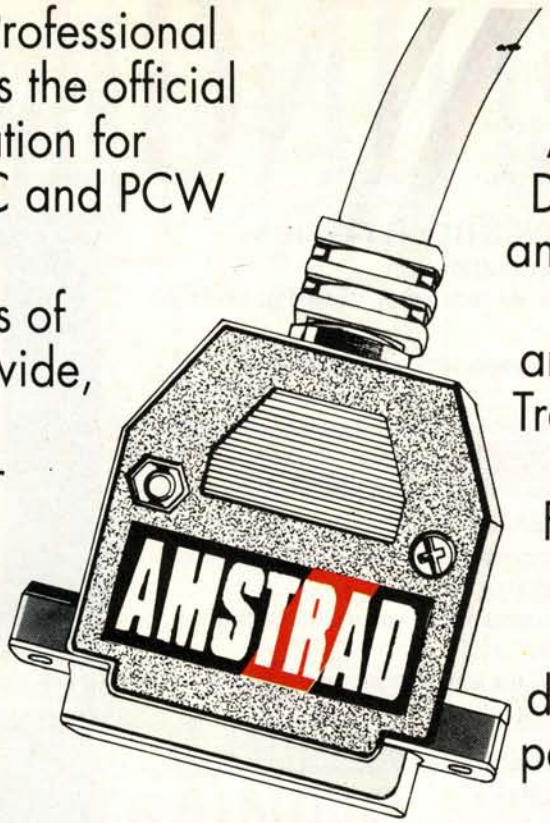

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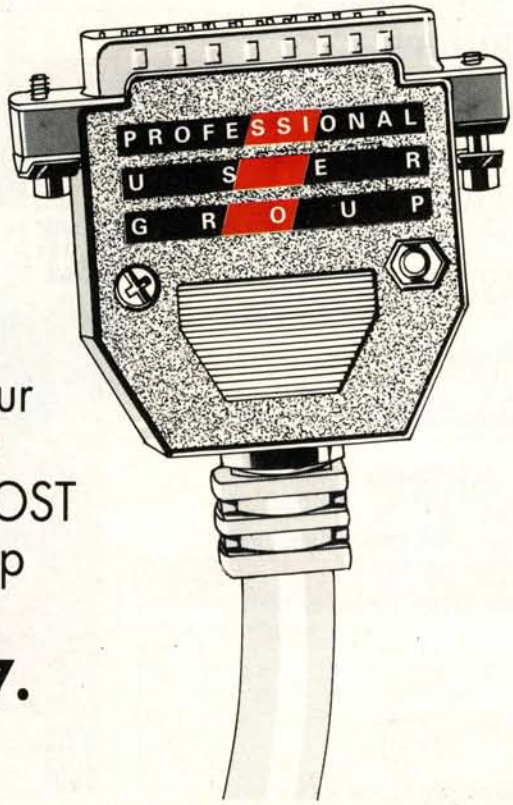

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Easy does it

Most of us have been there at some time or another; that feeling of hollow cluelessness you get when you sit down at a table in an expensive foreign restaurant and realise that you can make neither head nor tail of the completely unintelligible menu that the waiter's placed in front of you. You can't understand what's on the menu and probably wouldn't be able to pronounce your order even if you could.

You leave the table frustrated and hungry.

This is how the relatively naive PCW-user can feel when confronted for the first two or three times with the famous CP/M A> prompt. He or she may have a rough idea as to what's on the menu, but the logistics of the situation – finding what you want to call up (and doing just that) – remain utterly defeating.

Getting to grips with what our French counterparts quaintly term 'les manipulations CP/Miennes' can involve cutting your way slowly through a jungle of syntax that has about as much charm as a Morse code emergency signal.

Yet software like PCW SuperDOS – featured on this month's cover and reviewed at length later in the magazine – has the potential to translate CP/M's perfunctory A> prompt into a golden gateway. By divesting the PCW's operating system of its harsh unyielding prompt and replacing it with a friendlier, more communicative front end, innovative software like this is going to enable further PCW users to harness even more of their desktop power.

With the non-LocoScript half of the PCW made more easily accessible, the machine will finally be able to shake off its tenacious 'dedicated word processor' label and journey further into the realms of business applications, desktop publishing and even on-screen entertainment.

The opportunities are there for the taking; why not give it a try?

Sharon

Open Sesame

The stunning events which have been unfolding in Eastern Europe over the last few months will be starting to make themselves felt even in the PCW world before too long.

Today newspaper recently reported Amstrad's international sales director, Mark Simons, as saying that they were in talks to find a Russian trading partner. According to Amstrad's public relations people, the company will be attending a 'major computer exhibition' in March to be held in Moscow. Amstrad, it seems, have already made a name for themselves in the Eastern bloc with their music centres. Russian tourists have brought these home from trips to Britain and America. The Today report went on to mention that the demand for computers was so great that people were actually fighting over them.

The eastern bloc certainly would be a massive market for Amstrad to move in on. According to a reliable source in Europe, PCWs are already being shipped from West to East Germany as well as to Czechoslovakia. Thomas Weidmann, a German businessman and dealer in all things PCWish, has been selling PCW hardware and software to both countries. He tells us that 8000 series PCWs are the best sellers due to their ability to print graphics. Shipping 9512s with dot matrix printers looks like being the next logical step.

Locomotive Software have already produced a cyrillic character set for the PCW. This was seen as a boon for Russian language students at the time. Now, however, it looks like being a far greater investment than anyone could have known back then. Thomas Weidmann tells us that his company have access to Czech keyboards – an advance which not even Amstrad have yet got into – and as far as we know this makes the PCW uniquely useful for that market.

With the PCW already a top seller in Russia and with Amstrad looking for even more expansive trade deals, it might be hoped software firms will enter into the fray and that consequently British PCW users will feel the benefit.

How *Today* newspaper saw the PCW and the German market cuts in

NEWS by Tim Smith

CAN YOU HACK IT?

Would you like to get into the world of magazine publishing? With the expansion of Future Publishing and the continuing success of 8000 Plus, we are now looking for a Production Editor cum writer to join the team in Bath.

The job will entail ensuring a smooth flow of copy between the editorial and art departments, sub-editing, proof reading and writing copy. Although all of our writing is done on PCWs, the layout of 8000 Plus is carried out using Apple Macintosh computers. Consequently, experience of Macs would be an advantage but not essential.

The successful applicant will need to have a keen eye for detail, as well as the ability to produce clear, concise copy within strict deadlines. Of course, a sense of humour and active imagination are essential.

Send your applications, in writing only, and with a full CV to: Sharon Bradley, The Editor, 8000 Plus Magazine, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, BA1 2AP.

Small but perfectly formed

If you turn to pages 34 and 35 you will see a rather glowing review of MicroWriter Systems' AgendA pocket computer. The British Design Council have also taken note of this innovative little machine; so much so that they will be presenting it with an award.

To be exact, the AgendA is to receive one of the seventeen British Design Awards given in 1990. This is quite a boost for Microwriter Systems who are up against such stiff competition as Sharpe (with the IQ), Psion and the Atari Portfolio. Even though the AgendA is produced in Singapore the fact that it was conceived and funded in Great Britain has convinced the Design Council to recognise its achievement. This makes the AgendA one of only three products not made in this country to receive such praise.

According to the Design Council their awards are given "for products chosen for their outstanding all-around design. The judges look for excellent performance, innovation, safety, ease of use, value for money and good appearance."

Micheal Davis of Microwriter Systems is quoted as saying: "In my experience, industrial design is

The Microwriter Systems AgendA. Up to the Savoy to pick up its award in February. See our review later in the magazine.

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absolutely crucial. Of course, it is an essential part of the marketing of the product; but in addition the design has to reflect the functionality of the item all the way through."

To see whether we agreed or otherwise with these sentiments you should read the review. The award itself will be presented at a ceremony to be held at the Savoy Hotel on February 15th.

Say Grace,Darling

Luxylan Software, otherwise known as Luxsoft, tell us that "...recent sales of its ever increasingly popular 'Basic Needs' package of computer programs for the Amstrad PCW have raised a further £50 for the Cornwall Air Ambulance".

The PCW appears to generate a great deal of charitable feeling, with one notable exception – for that see 'Your even better nature' in the Snippets section.

Basic Needs has been out there raising money for the RNLI for well over a year now. Unfortunately the response has not been the most staggering in the world. With your help this could change. What you actually get is a disc containing the following utilities:

a file comparison program which will match ASCII, random access or BASIC files. Such a utility shows its worth when you have copied files and want to make sure that the new version is up to its original.

A file copy program which features step-by-step prompts, wild cards and a warning if the name chosen for the copy is already in use. The ability to stop you overwriting files which already exist could be a real boon.

For BASIC buffs there is a program called FLAP which gives what Luxsoft say is a 'full analysis of Basic programs'. Variables may be tracked regardless of case. You don't need to bother saving your programs in ASCII file format, which will speed up the process of checking. It also makes use of chain-merging in order to check up to four related BASIC files.

A small utility called FPRT will allow you to print text files to screen or printer.

Finally, the pride of the pack is FRED. This acronym stands for FRiendly EDitor, claimed as a BASIC editor which is more amenable to human beings than RPED. It is able to handle files of up to 500 lines or 15k in size and lines of up to 255 characters in length (not a recommended length for any program listing!). Making use of the PCW keyboard in a specific way by using keys such as DOC, COPY, PASTE and EXCH/FIND it should make life easier for a great number of people....especially the lifeboat men and women.

There is more on the disc, and to find out exactly how much more, you should get cheque book and pen ready. The price is £9.95. In addition, a new version (1.3) has just been released and users of previous versions can upgrade by sending in their discs and a cheque for £2.00 made payable to the RNLI.

Malcom Surl assures us that for every disc that's sold, £5 goes to the RNLI. If you'd like more information, or you want to make a donation, call Luxsoft on the following number: 0726 850 820.

Character reference

Dr David Instone Brewer, armed with a PhD in Ancient Rabbinics from Cambridge has come to the aid of LocoScript 2 users, specifically those readers who need to work in Hebrew.

Hebrew is certainly possible using Protext but up to now the Jewish PCW population – and other people with an interest in the language – have been ill catered for in LocoScript. David Instone Brewer will remedy this with a full Hebrew character set.

This can be printed to screen or printer in both Near Letter and Draft quality. Asked why he has decided to offer this service David told us: "I did my thesis on ancient Judaism using an old computer and dot matrix printer. Then it was time to upgrade to a PCW and I knew that I would need a Hebrew set. So, using my own software, I created one."

The most difficult part of this process is the fact that Hebrew defines its vowels in a unique manner, by way of special

CLUB NEWS

Nice old HAG

The Hereford Amstrad User Group (or HAG for short) in the guise of David Rose has written to tell us about the continuing success of the organisation.

David says: "Since writing to you last October the Hereford Amstrad User Group has gained several new members, due mainly to the articles published in Club News." He continues in slightly less trumpet blowing tones: "If new members come to us with that glazed look and expression of horror when anything other than word processing is mentioned, it is not their fault but that of the salesman/retailer. The aim of the group is to help members to use the PCW as more than a glorified typewriter. We are also looking for the new members whom we can help with information in all directions."

A laudable aim to say the least. Now, in order to raise finances to support the group, HAG have decided to offer a number of services.

You can have files transferred between the PCW and Psion organiser. According to David Rose, the service "is intended for those who want the job done but do not want the bother of setting the whole system up for themselves. And for £5 plus the postage, it can't be bad."

The details of the service are as follows: transfer of name and address lists, diaries, notes, files and programs from PCW 3-inch discs to Psion Datapaks ready for use. You need to send the disc containing the data you wish to transfer, in any number of forms from LocoScript files to mail-merged documents or a LocoFile database. You also need to send the Psion Datapak. Cheques should be made payable to Hereford Amstrad User Group. Finally, you will need to include an SAE for return which "hopefully will be within 24 hours".

The funds raised from this service will be used to help with trips such as the "recently organised outing to a computer centre", as well as "purchasing hardware items such as modems, interfaces and the like".

On top of this information, we also got a look at the Christmas letter (we know it's a bit late). In it is information relating to the last meeting, which was "in the form of a workshop, small groups of three and four who were there to discover more about LocoScript, LocoFile, Money Manager and other programs brought along."

Remote control

Since our report of the death of the Leeds PCW bulletin board, we have been informed (in no uncertain terms) of a new BBS. This one is based in Lanarkshire and is run by Nigel Hill, a writer on a Scottish national daily paper. He tells us that he is "also able to offer help and advice for those who wish to upload their writings to the many and various mainframes operated by newspapers and publishing houses".

The Bulletin Board Service details are as follows:
0555-851887, v21, v22, v22bis, v23 – 8/n/1. It is open between 18.00 to 08.00 hrs.

The only qualm we have about the service is the rather sexist imagery used. Do we lack a sense of humour? We'd like to hear your views, so log on, find out and tell us.

PCW users get together to get much more out of their machines.

markers. These can go above, below or even inside the characters and, according to David "..it's like having accents all over the place". It appears, however, that the problem was solved. The new character set can be used both from left to right and right to left. It can be mixed with English, Greek and Symbols as well still allowing you to print Cyrillic.

If you would like to make use of the Hebrew character set you should have £13.95 ready. Equally, if you would like to see a demonstration copy for free, you should contact Dr David Instone Brewer on 0954 781655. For the full version you send the money and your LocoScript 2 start-of-day disc.

Citizen 2000

The feedback we receive from our readers would lead us to believe that, sooner or later, most PCW users upgrade their printers. 8256 and 8512 users find that their printers are too slow, while 9512 users feel that they require dot-matrix printers for the graphics capabilities.

One of the more popular printer manufacturers is Citizen. This month we received news that they had managed to sell 60 of their 120D , 9-pin, dot matrix printers to one of the new City Technology Colleges. This one is based in Middlesborough. According to the Citizen press release, "all new in-takes (pupils) will have a Z88 portable computer each which they can take to lessons and back home for homework. At the end of the year they will hand them back to the next first years."

A first year student at the Middlesborough Macmillan Technology College works with a Z88 and a brace of Citizen printers.

A phoney?

Unhappily for the 8000 Plus phone bill we have been hit by comms fever since our recent move. So it was with interest that we received the following news from Hi-Tec modems of Peterborough.

The new Hi-Tec EC2400 is heralded by the company as an "approved quad speed, MNP5 modem at £300 less than everyone else."

They continue to tell us that the new modem is fully Hayes Compatible – this means in effect that it will work with the majority of comms software – and has a battery back-up. Its other features include autobaud and autoparity which, it is said, will automatically set the modem to suit your computer. Thankfully it also features a 'call progress speaker' which has adjustable volume, a fitted plug, number and command store, and also has MNP level 4 error correction.

Although we have yet to see the modem, it does sound as if it is quite an impressive beast. It's price tag of £399 (plus VAT) is not bad either. If you would like to find out more about the EC2400 you should contact Hi-Tec on 0733 897333.

A right modem and no mistake. The new EC2400 from Hi-Tec comes with built in power supply.

Streaming down

In our recent review of PCW-World's Streamlined BASIC software package there were two boo-boos which we would now like to correct. The first concerns the on-disc illustration of the Mallard train. We said that it didn't appear to want to work. Using the PCW's built-in BASIC it won't – you also need to have Lightning BASIC (also by Geoffrey Childs) running.

The final faux-pas is due to telephone gremlins creeping in to the copy betwixt hand and keyboard.The real phone number for PCW-World is 0384 66269 ... one less 2 than our version. Sorry 'bout that.

Laser bones

Two new printing bureaux have come to our attention. The first is called Inspiration and is based in St Helen's, Merseyside. Inspiration provides both laser printing and disc file transfer between different media. Their printing capabilities would appear to be quite comprehensive, offering as they do Laser, daisywheel and dot-matrix functions. Prices differ according to exactly what you want done.

Patricia and Richard Fletcher of Daiywheel are able to offer comprehensive laser printing to you.

If you would like to find out more, then contact Inspiration on 0744 55543.

The other new firm goes by the name Daisywheel and is based, again, in Merseyside, this time in Wallasey. Again the services appear to be quite comprehensive. They will laser print from LocoScript documents, and what's more they are able to retain your bolds, italics, or any other LocoScript printer codes you may have entered. Again price is according to the requirements of the task. Call Daisywheel on 051 630 2657.

Do the biz!

Sage, whom PCW owners will know from their Sagesoft Accounts packages but who have moved strongly into the PC market, have announced a competition with a punch.

The Sage Business Winner of The Year 1990 Award aims to find an entrepreneur who "typifies the go-getting business spirit of the 1990s".

The really interesting end of the award is the fact that the winning business person will receive £5000 and what the company call "a prestigious trophy".

On top of this will come £5000 worth of management consultancy from the very prestigious firm of Price Waterhouse.

The main entry requirement is that the firm for whom you work must be a small one. Entry is open to "managers in companies with less than 100 employees."

The winner will have to show "true entrepreneurial spirit on behalf of his or her company". If you would like to find out more about the competition, you should 'phone David Goldman at the Sage Group Plc, on the following number: 091 213 1555.

SNIPPETS

Your even better nature

Bahhhh humbug! Last month we mentioned the fact that the Chichester and Bognor Regis Victim Support Group were in need of a PCW. We are going to keep on mentioning it until they get one! You have been warned, most especially the person who phoned to ask the group if they had any spares which they could let go?! If you'd like to help, then phone either W G Calvert or Jill Munion on the following number, 0243 670718.

It's so big

The picture you see before you is the Wenger 12/T – "Britain's first Tempest certificated laser printer". The company who sent us the press release forgot to mention price or compatibility details. So, it gets this month's Snippet's picture award for services to trees!

Laser printer for the rich and famous? Who knows, there was no price!

Da comrade

As an interesting piece of trivia and to retain the flavour of our main story, you might like to know that Boris Yeltsin is writing his biography on a PCW.

Mr Yeltsin is the thorn in Mikhail Gorbachev's side and a hard man in Soviet politics.

1992 and all that

With Europe set to open up in a single economic market in 1992, four new packages from Apex Computing Services Limited will be of interest.

Based in Hove, Sussex, the company have launched business language programs in Italian, French, Spanish and German.

The language learning packages have been specifically designed for business and professional users, introducing the full range of terms which the European businessman or woman will require in their day-to-day work.

For more information, you should contact Vincent Desborough on 0273 727477. Arrivederci amici!

"The Rolls Royce of PCW desk-top publishing"

Amstrad PCW magazine, July '89.

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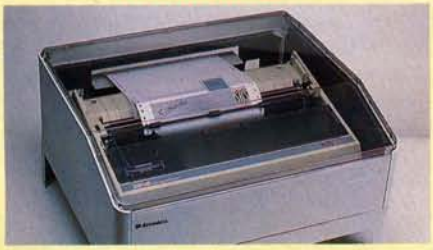

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BANKS FOR THE MEMORY

SCA's plug-in RamPac boosts your PCW's storage. But is it worth it? Memory man Rob Ainsley answers the questions

The very polished-looking SCA RamPac as it arrives (left). The memory chips (right) expand your PCW's RAM to make it 512K bigger. And the good news is that the pack just slots onto the expansion port at the back of the machine.

SCA 512K RAMPAC ADD-ON

£119 ● SCA Systems ● 0903 700288

The SCA RamPac is a small box that plugs into the back of your PCW and increases your PCW's memory capacity by 512K: nothing more, nothing less.

If you wonder why anyone would want to do this, then you probably don't need one. The PCW processor is slow by today's standards, putting arcade games out of the question – except perhaps a slow-cycle simulator for a pack of tired sloths – though it is fine for word processing. But the size of the Random Access Memory – 256K on the 8256, 512K on the 8512 and 9512 – compares very well with much more expensive home micros.

So why should you need to make it bigger? Well, as anyone who's dabbled with the LocoScript add-ons or with CP/M programs will know, the RAM you have available is like the size of your house. Somehow it's never quite big enough and you could always do with more storage.

Suppose, for example, you use LocoSpell. This really needs the dictionary to sit in the memory – 160K for the large one. It is possible, though not convenient, to use smaller dictionaries (which aren't so good for spell checking) or run them from disc (but it's very slow). Then there's your user dictionaries too. Add a few LocoFont files at 12K each, plus sundry templates and so on and you can start to run out of memory space, particularly on an 8256. You end up having to delete some files from the memory, or use the small dictionary instead of the large one, or forget the fonts, and so on.

This is where the RAM add-on comes in. It's a set of memory chips that expand your RAM to make it 512K bigger. Now, the idea is nothing new; memory expansions have been around for ages, and in fact have been recommended by Locomotive (makers of LocoScript) for 8256 owners so they can use LocoSpell with big dictionaries, LocoFont and so on. A 256K memory expansion costs about £40 or so, compared to £120 for the 512K of this pack.

But memory expansions up till now have involved taking the back of your machine off and soldering the chips in – or sending your machine away to have it done. SCA have produced this ingenious device which simply plugs on to the

Don't bank on it

The PCW splits up its RAM, or Random Access Memory, into several banks. Most of this you can use to store things in: programs, files, documents, whatever.

You can edit them, delete them, copy them and so on, move them onto or from floppy discs – so your memory, or M drive as it's also called, is in that respect like an A or B drive.

However, files in RAM are only stored so long as the machine is switched on. When you pull the plug, and the PCW 'dies', the RAM is wiped clean.

But the PCW reserves some of the memory for 'office use'. When you start up LocoScript, the PCW reads off the program from the disc and stores it all in an area of the memory you can't get at – the TPA, or Transient Program Area. Otherwise you might end up accidentally overwriting the program with a file or something.

There is 61K of this TPA, and any program bigger than 61K has to be split up into chunks for the PCW to take one bit at a time. When you switch off, anything in the TPA along with the rest of the RAM is lost – which is why you have to reboot LocoScript every time you switch on.

BASIC works in this 61K and once the BASIC program has taken its share of the memory, you only have about 30K to use for listings: any BASIC program of more than 30K must be split up into parts. For similar reasons, SuperCalc spreadsheets can only be a maximum of 30K or so.

The PCW also reserves other areas of its memory for 'office use' and leaves you with 112K on the 8256, or 368K on the 8512 and 9512, to use for yourself. This is the size of your 'M drive'.

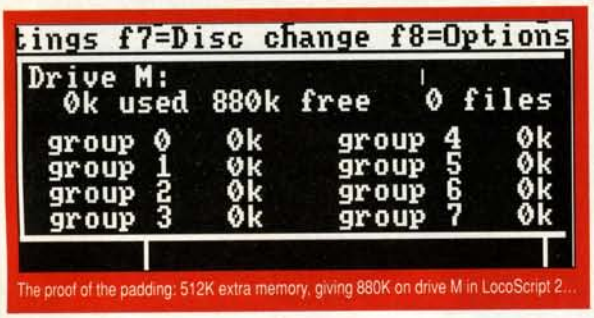
The addition of the SCA interface adds 512K to the RAM, giving you 624K on an 8256 and 880K on an 8256 or 9512 machine.

It doesn't increase the TPA or any of the other hidden areas of the memory, so BASIC programs continue to be subject to a limit of 30K or so, and SuperCalc spreadsheets still can't go over 30K either.

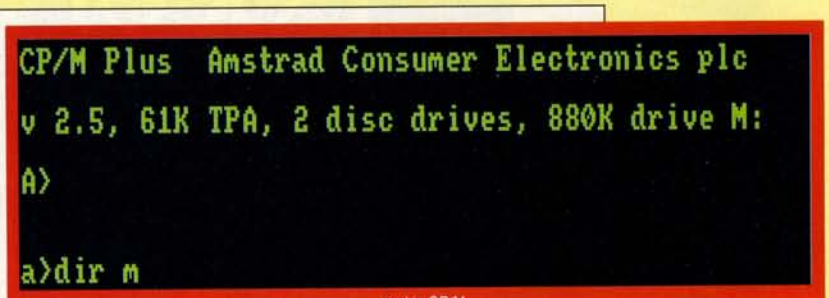
Alternatively...

You can save a bit of money in expanding your 8256 if you're not afraid of a simple bit of DIY and invalidating your guarantee!

Silicon City on 0209 891141 will give you an extra 256K of memory to fit yourself for £34.95. Full instructions supplied ... about as difficult as changing a fuse.



The proof of the padding: 512K extra memory, giving 880K on drive M in LocoScript 2...



...and in CP/M

back of your PCW, on the vertical edge connector. No soldering or screwing – just plonk it on.

The unit itself is a box about the size of a couple of packets of cigarettes. There's a small switch you can set to 8256, 8512 or 9512, and on the back is an edge connector just like the one it plugs onto on the PCW. This enables you to 'piggy-back' interfaces: your printer or modem can thus plug into the back of the SCA interface and still be used in conjunction with the memory pack. You can even add another memory pack, to give up to a maximum of 2048K extra memory.

What's in store

When you start up with the unit plugged in you find your M drive, as displayed by LocoScript, is 512K bigger. One major advantage of this is that you can copy a disc on a 9512, or a B drive disc on an 8512, in a single go: copy the contents of the 706K disc to the memory, then copy them from there to the new disc.

8256 owners are the main beneficiaries though, getting a double-size memory expansion without having to do tricky soldering or sending their PCW away to be upgraded.

The SCA interface has been produced with advice and help from Locomotive, and it has been tested by them to make sure it works with all current and future LocoScript products.

Protext, Masterfile, BASIC and so on don't work faster or neater, you just have more space in the memory to work on those large files. The spell checker in Protext, for example, can be worked in the memory on an 8512 with interface, making it faster. You can work on everything in memory if you wish to make things faster, but have to copy everything back to disc before you switch off, of course!

PCW users who use a lot of programs can put Protext, the dictionary, BASIC, Masterfile and so on all together with their data files in the memory, and swop between them almost instantly. (Mini Office can't be run from the M drive like this).

If you've ever felt cramped by your PCW's memory – and 8256 owners surely all have – then this will solve the storage problem. At £119 it's very good value: the unit has been cleverly designed, well put together, and provides the quickest and easiest way of upgrading your memory. ■

SCA RAM PAC

PLUSES

- ▲ Easy to fit - just put on
- ▲ Tested by Locomotive, works with all their add-ons
- ▲ Can piggy-back other interfaces
- ▲ Can copy 706k discs in one
- ▲ Great for 8256 owners

MINUSES

- ▼ Pointless if you don't use memory hungry programs like Loco Spell or LocoFont

USEFULNESS	3/5	STURDINESS	5/5
EASE OF USE	5/5		

8000 PLUS VALUE VERDICT 13/15

But will it work?

Here's a quick checklist of some programs we tried with the RamPac and whether they work with the extra memory. Some will recognise the extra memory, and can use the extra 512K in the M drive; others will not, and can only use the same amount of space that you had before. We've noted if the extra memory is useful, beyond just giving you a bigger M drive to play with.

LocoScript 1: No
LocoScript 1 should still work if the pack is in place, but it won't be able to access the extra memory

LocoScript 2: Yes
Useful for unexpanded 8256s with LocoSpell or LocoFont; useful if you use both LocoSpell and LocoFont together on 8512 or 9512; possibly useful if you use very large (over 100K) LocoFile files and want to work on them in the memory for speed

BASIC: Yes
Not especially – maximum program size remains 30K or so – unless you have memory-hungry applications

SuperCalc 2: Yes
Not especially – maximum file size remains 30K or so

Protext: Yes
Enables spell check in memory on 8256; 706K discs can be copied in one go on 8512 or 9512

Masterfile: Yes
Possibly: maximum file size is limited by memory, so becomes 624K instead of 110K on 8256, 880K instead of 368K on 8512 or 9512

Mini Office: Yes
Possibly: maximum spreadsheet size limited by memory, so becomes 624K instead of 110K on 8256, 880K instead of 368K on 8512 or 9512

Stop Press: Yes
Definitely on 8256

Micro Design: Yes
Definitely on 8256

Composer's Pen: Yes
Not especially

Flipper: Yes, but check before buying – may depend on version
Extremely useful – would enable you to run LocoScript plus LocoSpell etc. in one half and large CP/M program such as Mini Office in other

Mini Office problems

Using extra memory with Mini Office can present problems. Some modules, such as the spreadsheet, erase everything in the memory before they load up, making it impossible to keep anything else stored in M if you want to use them.

I remember it well

Trouble with your own memory – recalling phone numbers, for example? According to the Guinness Book of Records there's a chap in Hong Kong who carries around 5,000 in his head. Unfortunately I've forgotten his name.

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SANS SERIF: Taking this as our hypothesis, we can...

SCRIPT: *We're glad to hear that you enjoyed the surprise party...*

STANDARD: Please find enclosed confirmation of your order...

CAPITAL: FOR SALE: MINI 1000 – GOOD LITTLE RUNNER...

COPPERPLATE: You are invited to a housewarming party...

DECO: Avacado Pear with prawns

DEFINITE: We have been forced to adopt a tougher approach...

FINESSE: The fête this year will be held on the 10th June...

MINI 15/17: This package is supplied on the terms shown below...

Mini PS: A word processor provides a facility to create documents...

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THE BEST OF CP/M

Getting started in CP/M is only half the battle. Steve Patient shows you how you can consistently get the best out of it

As far as CP/M is concerned, you've been behind the wheel for quite some time now; while it might be an exaggeration to say that you're brimming with confidence, you probably feel that you could get yourself from A to B with a reasonable degree of competence.

One thing's bothering you though: what do all these other CP/M drivers know about that you don't when they leave you battered and bereft in the trail of their bright red go-faster PCWs? Perhaps it's time to consider the slightly more advanced CP/M driver's course?

Everyone knows that the way to get a listing of all the files on your disc under CP/M is to type **DIR** at the A> prompt. They know too, that to get a listing for a drive other than the one currently in use you have to type **DIR B:** – or whatever the drive is that you want to know about.

But do you make enough use of wildcards? Getting a list of over a hundred files may not be the most efficient way of finding out if the disc currently in the drive has the file you want on it: so why not list just the files you want?

When supplying filenames CP/M can accept two wildcard characters. These are the asterisk and the question mark. The asterisk character can replace any number of letters on either side of the dot in the filename. So using the name **DIR *.***, for example, will show all files you have on the disc, **DIR *.LET** will only show the files on the disc that have a .LET suffix, while **DIR MAR*.LET** shows only the letters you created last March. All this minimises the amount of irrelevant information that you have to look at on the screen when you're hunting for a particular file.

By contrast the question mark can be used to replace single characters only; thus the command **DIR TEST?.BAS** will find the first nine versions of your latest BASIC program – if they're there. While **????????.???** will find all files that have eight characters in the filename and three in the filetype. Both the asterisk and the question mark can be used together in a filename. They can also be used in conjunction with other CP/M utilities and programs. For example, the ERASE command. Just type **ERA *.BAK** to clear all your old word procesor files from a disc.

For real directory power you need to have the DIR.COM program available on the default drive (or on the search path – more on that below). Typing **DIR M:[FULL]** brings up a list of filenames in alphabetical order, complete with information about their type and size. Ideal if you want to find out whether or not you can fit a group of files onto the remaining space on a disc.

One last tip on directories. For a quick printout of a disc's contents, press [ALT][P] before giving any commands. The PCW will bleep uninformatively, but now everything that appears on the screen will be echoed to the printer until you press the same keys again. This can be used for quick printouts of instructions on disc (such as READ.ME files) as well as directory listings.

Gearing up

The command line itself offers even more opportunities for the streamlined CP/M user. There's no need to completely retype the last command if you want to repeat it. For another DIR straight after the last one, just type [ALT][W] and watch the command re-appear. This works for long commands as well.

It's probable that you've changed a filename using REN:
REN OLDNAME.FIL NEWNAME.FIL
If the other two or three files you want to rename are at all similar, then just press [ALT][W] and edit the old line instead of retyping from scratch.

There are other key combinations worth knowing about: never turn your machine off to reset it – use the [SHIFT][EXTRA][EXIT] combination and save wear and tear on the electronics inside.

Making your keyboard work a little differently might be useful on occasion. [SHIFT LOCK] turns on upper case but it also shifts all the numeric keys at the top. More useful is the [ALT][ENTER] combination which shifts all the letter keys without shifting the numeric keys. [ALT][RELAY] turns on the numeric keypad if you have a lot of numbers to enter – like into a spreadsheet. Don't forget that you can have both of these keyboard states on at the same time to access both upper case and numeric keypad. Pressing the same key combination again turns the facilities off.

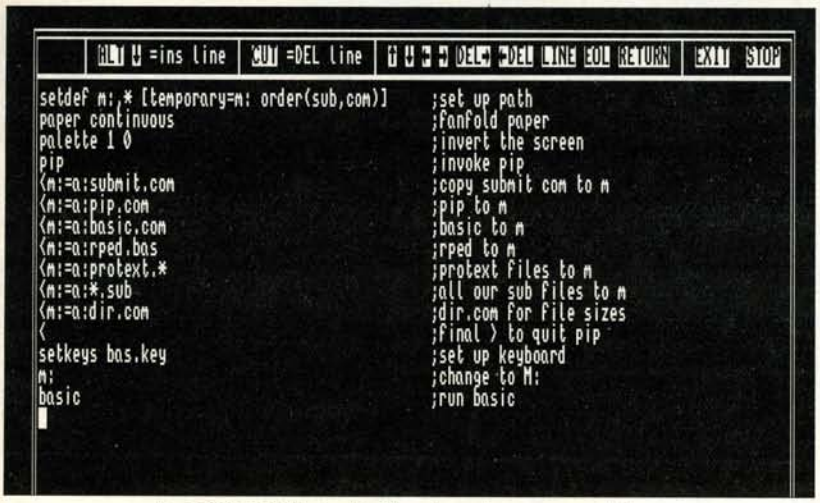
For a last bit of showing off in case anyone is looking over your shoulder, how about issuing more than one command with a single key press? CP/M lets you separate commands with an exclamation mark and carries them out one after the other. The command:
A:!ERA *.BAK!DIR
will change to the A drive, erase all the .BAK files and then show you a directory listing – impressive or what?
If you want to have things happen without having to worry about where they're happening from, then make

```
M>a:
A>dir [full

Scanning Directory...

Sorting  Directory...

Directory For Drive A:  User  0

    Name      Bytes   Recs   Attributes      Name      Bytes   Recs   Attributes
------------ ------ ------ ------------ ------------ ------ ------ ------------
BASMENU  BAS     4k     26 Dir RW       BASMENU  DOC     3k     23 Dir RW
BAT      BAS     6k     41 Dir RW       BOWL     BAS     1k      8 Dir RW
BOX      832     2k     13 Dir RW       CLS      COM     1k      1 Dir RW
CPMKEYS  COM     1k      8 Dir RW       DEVICE   COM     8k     58 Dir RW
DIR      COM    15k    114 Dir RW       FMKEYS           1k      1 Dir RW
MOW      834     2k     13 Dir RW       J14CPM3  EMS    40k    320 Dir RW
JC       BAS     1k      8 Dir RW       KEEPER   BAS     3k     20 Dir RW
MS       COM    12k     92 Dir RW       PAPER    COM     2k     16 Dir RW
PIP      COM     9k     68 Dir RW       PROFILE  BAK     1k      3 Dir RW
PROFILE  SUB     1k      3 Dir RW       PTOMAC   COM     8k     58 Dir RW
SET      COM    11k     81 Dir RW       SETDEF   COM     4k     32 Dir RW
SETKEYS  COM     2k     16 Dir RW       SUBMIT   COM     6k     42 Dir RW
TAX      BAS     4k     29 Dir RW

Total Bytes     =    148k  Total Records =    1094  Files Found =   25
Total 1k Blocks =    148   Used/Max Dir Entries For Drive A:   27/  64

A>
```

Using the PALETTE utility you can make one of the most dramatic of all possible changes to your CP/M system – black letters on a green background.

Edited out

One of the least satisfactory aspects of CP/M is the complete lack of decent text editors. ED is completely unusable except by certifiable masochists – don't even consider it. For very simple jobs – like batch files – you can use PIP as described in the text. Best of those provided is RPED – Roland Perry's EDitor – which runs under BASIC. It's worth copying this to M on start-up and having yet another batch file called BASED.SUB (or something similar) with the line BASIC RPED in it. For a full description of RPED see issue 39.



Your PROFILE.SUB file should set the system up the way you want it to be. This means getting to know how your system utilities work and using them.

sure you've set a path in your PROFILE.SUB file. The SUBMIT program looks for this (provided it's on your start-up disc) every time you invoke CP/M. Make sure that anything that will make the rest of the day's work on the PCW easier happens right at the beginning; don't leave it until life gets irritating.

In the fast lane

One of the easiest short-cuts to use is to make sure that CP/M looks on all available discs for any files you ask for. Use the SETDEF program and make sure you've a line like this in your PROFILE.SUB: FILE

SETDEF M:,* [TEMPORARY=M: ORDER=(SUB,COM)]

This will force CP/M to look on the M drive first of all for any program you ask for, then on any other drives available; it also forces CP/M to put temporary files on M (for example, the copies of SUB files that CP/M always makes when it runs one); and finally, it forces CP/M to look for SUB files to run before looking for COM files. Each of these three instructions will add a little speed to the system.

Another very effective means of speeding things up is to ensure that program files – including utilities like DIR.COM – are always copied to the M drive when you start your PCW just after breakfast. Loading programs from M is so fast that they appear to be built-in. For an example of a SUB file, try the PROFILE.ENG file on side two of the master disc. This has been provided as a kind of default. It can be renamed to PROFILE.SUB and does a good job of setting up a usable CP/M environment on the PCW.

Getting on your PIP

Submit files can add a whole host of commands to your CP/M system, especially when used in conjunction with PIP.COM, the all-purpose utility that no serious CP/M user should ever be without.

How about adding a print command to CP/M for example? This is easily done using a submit file with SUBMIT's ability to accept parameters. Create a simple text file with this line in it and a [RETURN]:

PIP LST:=$1

Call this file PRINT.SUB. Since PIP.COM and all your homemade command files will be copied across to M at the start of day, all you have to do to print out a file is type **PRINT FILENAME.TYP** and watch it happen. For a truly whacky command, try a file called LPRINT.SUB with the line:

PIP PRN:=$1

It would be nice to have a simple copy command added to the system. This is easily achieved with a SUB file (it might even be called COPY.SUB) with the line:

PIP $2=$1

To use this, just type **COPY FIRSTF SECONDF** to copy the first file to a new file with the name SECONDF. By now your PCW running CP/M is getting seriously faster and even easier to drive.

All right, one last trick with Submit files. A nice little editor suitable for creating SUB files perhaps? This will be a file called EDIT.SUB containing the line:

PIP $1=CON:

To use this type **EDIT NEWFILE** (where NEWFILE is the name of the file you want to create). The cursor will sit there and wait for you to write something. This is a very simple-minded editor; you can't delete or alter anything once you've typed it – so don't write anything too long with it – and to get a new line on screen you have to press [RETURN] followed by [ALT][J]. To close the file type [ALT][Z]. OK, so it isn't very powerful but it is free and learning all the commands is dead easy. You can work out other little commands to add for yourself.

Chopped and dropped

If you don't like working with green on black then change it using the PALETTE utility. **Palette 1 0** sets inverse video while **Palette 0 1** changes it back to the original display. This won't make it go any faster, but it will certainly impress other users.

Finally, a few hints on speeding up BASIC. The first thing is to ensure that you're running it from drive M. Since BASIC is a large program (around 28K) loading will be much faster from the RAM drive. You can use a Submit file for this containing the lines:

BASIC
<OPTION FILES "B"
<

so that although BASIC is running from M, it loads and saves files to B for greater security.

One of life's little irritations is the limitations of the built-in BASIC line editor. If you've already pressed [RETURN] before noticing an error in the line, having to type edit 320 – or whatever – can be annoying. However, [ALT][A] has the effect of bringing the last line up for editing.

Other key combinations can be useful under BASIC: [ALT][F] and [ALT][A] act in the same way as the cursor keys inside a line – useful if the number lock is on. [ALT][M] acts as [RETURN]; [EXCH][EXCH] takes you to the end of the line and [CUT][CUT] deletes to the end of the line.

The greatest single increase in speed with BASIC comes from assigning complete keywords – like PRINT – to function keys. For this you need the SETKEYS utility (which really does need an article of its own - and had one, it's fully covered in issue 36.)

It's easy to see from all of the above that you don't have to accept the default arrangement provided by either CP/M or any of the programs you choose to run under it. By making better use of the utilities provided with the system – and understanding how CP/M achieves its results – you can move up quickly and easily from learner status to advanced-driver status.

The important thing is not to accept that things have to stay the same; if you want CP/M to suit you rather than itself, then arrange it. In this short introductory article it's impossible to cover every aspect of supercharging your system. As you become more familiar with the way the PCW works you'll discover your own tricks, and no doubt write in with them to Tipoffs. Don't be aftraid of CP/M, you can't break it. Get your toolkit out and get stuck in. ■

Absent friends

The astute observer will have noticed that there is no mention of User groups in the main body text and the way in which they can be used to separate or hide programs and data. The fact is that these tend to be more confusing than useful for the newcomer to CP/M.

For similar reasons many of the CP/M utilities have been ignored. Most of them are aimed not at the serious user but at the serious hacker. Don't worry that you know nothing of SETSIO and other arcane CP/M utilities - simply hope you never actually need to know.

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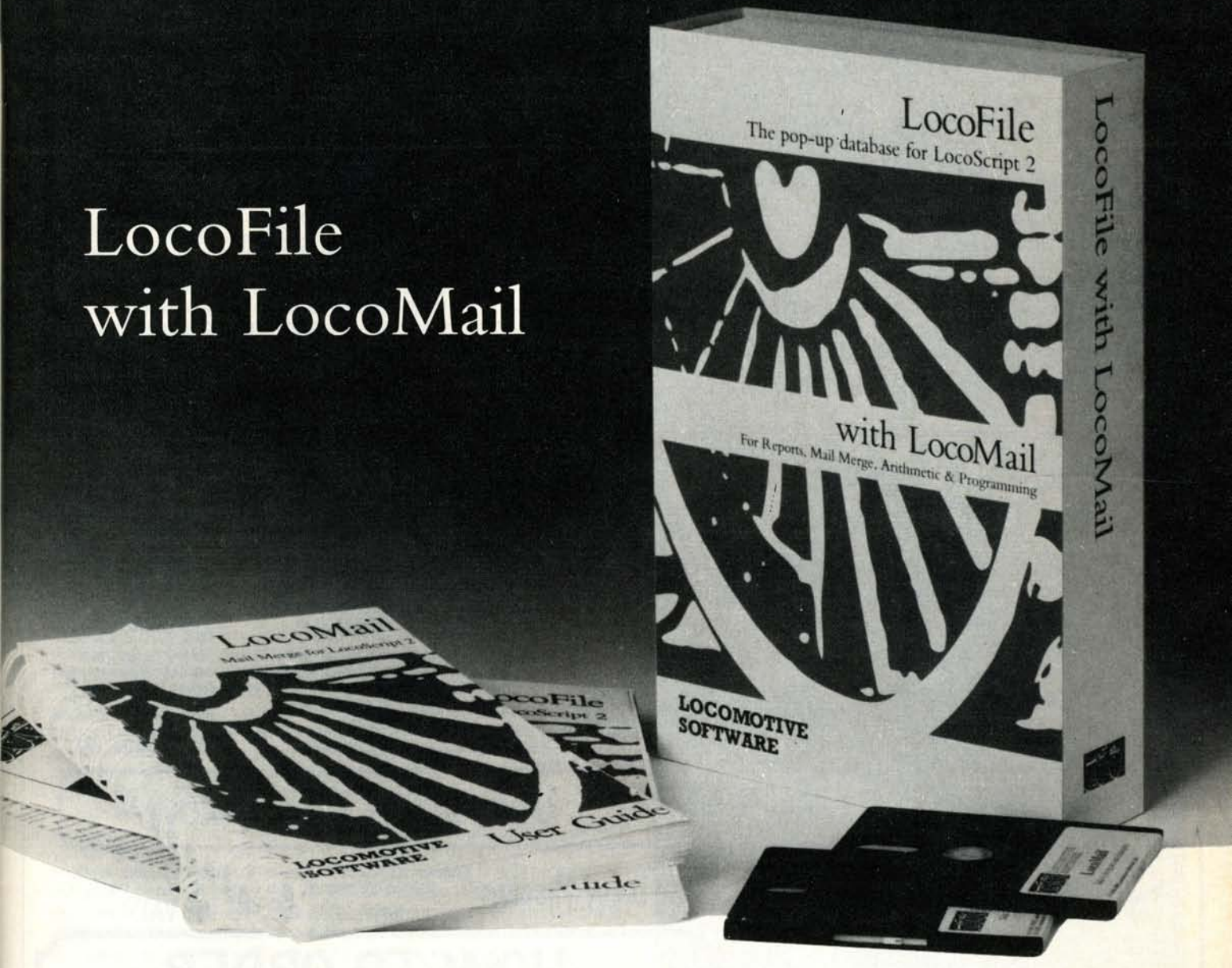

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DISC JOCKEYING

Is the PCW bowing to fashion? Tim Smith takes a look at Compact Micros' new 3.5 inch disc drive

3.5 INCH DISC DRIVE

£79.95 ● Compact Micros ● 0274 640589

When Amstrad decided to use 3 inch drives with the PCW, they were defying popular taste. The giants of the computer hardware world, such as IBM and Apple decided to equip their machines with either 3.5 or 5.25 inch discs, sometimes both. As a consequence, the major disc manufacturers turned their production lines away from 3 inch discs. This has left the PCW owner with two irritating problems; firstly the cost of discs for their machines and secondly their (un)availability.

Compact Micros, having obviously looked at this problem, have decided not to wait for the disc makers to change their minds. The next best thing is to produce a drive which will make use of the cheaper 3.5 inch format.

Private fitting

The new 3.5 inch drive is only compatible with single drive machines such as the 8256 or 9512. PCWs with twin drives have already used the available sockets. Users of the 8512 could feasibly use 3.5 inch drives by removing their B: drive. However for many PCW users the mere thought of fitting a new drive, let alone removing an old one as well, is enough to put them off the idea at the first step.

Put quite simply, the advantages of a 3.5 inch drive outweigh the small problem of opening up your machine. Not only are the discs more widely available, they are also cheaper.

The disc drive which arrived at the 8000 Plus office came swaddled in layers of bubbly plastic sheeting. At around 25cm (or 8 inches) long, 10cm wide and 2.5cm thick, it is not likely to clutter up your desk.

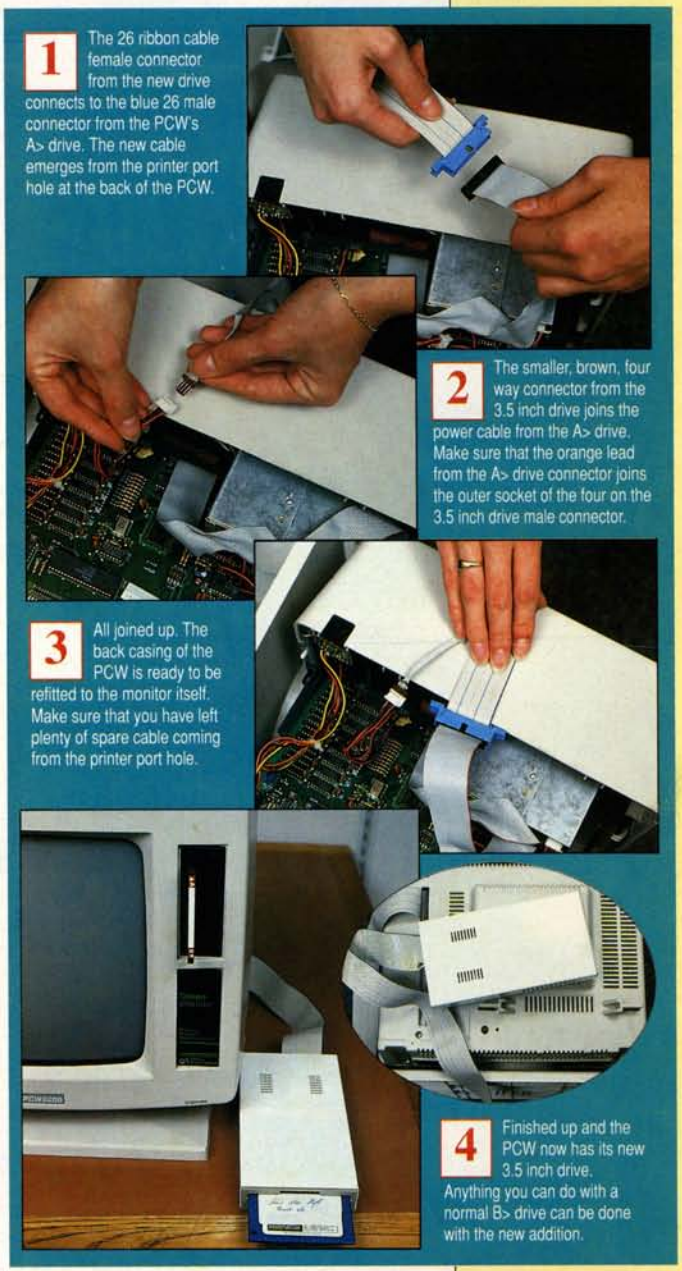
Once you have unwrapped it from its shroud (and burst a few bubbles for relaxation) you will see a white box with the drive aperture in grey at one end. From the other emerges the ribbon-cables used to connect it to your PCW. There are two of these; the larger of the two ends is a 26 way female connector. This will be used to join the drive to the 26 way male connector from the built-in PCW A> drive. The smaller of the two cables leading from the new drive ends in a 4 way male connector. This will be used to power the 3.5 inch drive and will be connected to a four way female connector within the PCW.

Now, switch off the PCW and get a blanket. It is a wise idea to leave your PCW for an hour or so in order to let it cool down and lose any residual charge that may have built up. You will need the blanket to protect the screen of your machine when you lay it on a flat work surface. Take a cross-head screwdriver and remove the six retaining screws from the back. Take the casing from the monitor and feed the two ribbon cables from the new drive through the printer port hole.

If you are not happy about the idea of fiddling about inside your machine you will probably find the instructions, a single sheet of A4, which comes with the new drive, a little thin. The reason for this, according to the company, is to cut down on costs in order to supply the hardware as cheaply as possible to the consumer. Jazzy packaging sacrificed for a sane price is not a bad trade off. And frankly, the drive really is very simple to fit. The new 8000 Plus 3.5 inch drive took roughly twenty minutes to get up and running. The final action is to refit all six of the retaining screws. Now, with fingers crossed, plug in your newly upgraded PCW and begin formatting some discs.

New discs for old

You can use Diskit as normal to format 3.5 inch discs. If you are using an 8256 you will see, for the first time, that you are given the option to format discs in either A> or B> drive. All of your new 3.5 inch discs must be formatted for the latter. These will now give you far more storage capacity than previously; 706k to be exact. 9512 users will double their present storage capacity. It must be held in mind that fitting this new drive has no bearing on the size of memory which is available on your PCW. The only caveats we would have about this drive relate to the lack of packaging and documentation. Aside from this, it is easy to fit, to use, is well made and very compact indeed. ■



1 The 26 ribbon cable female connector from the new drive connects to the blue 26 male connector from the PCW's A> drive. The new cable emerges from the printer port hole at the back of the PCW.

2 The smaller, brown, four way connector from the 3.5 inch drive joins the power cable from the A> drive. Make sure that the orange lead from the A> drive connector joins the outer socket of the four on the 3.5 inch drive male connector.

3 All joined up. The back casing of the PCW is ready to be refitted to the monitor itself. Make sure that you have left plenty of spare cable coming from the printer port hole.

4 Finished up and the PCW now has its new 3.5 inch drive. Anything you can do with a normal B> drive can be done with the new addition.

3.5 INCH DISC DRIVE

PLUSES

- ▲ Easy to fit
- ▲ Discs are cheaper and widely available
- ▲ Well built and small

MINUSES

- ▼ Not much documentation for the beginner

EASE OF USE 4/5 DOCUMENTATION 2/5
PERFORMANCE 4/5
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HIT AND MYTH

A game you can't buy but you can play? What's the story with Myth? Tim Smith finds out

MYTH

£22 (membership) ● Magnetic Scrolls ● 0279 726585

The reason you can't go out to the shops (or mail order) and buy Myth is because it's one of the perks given to members of Official Secrets. This club deals with all things adventursome in the computer world.

Onto the game. Myth is a text adventure with the occasional graphic thrown in to 'heighten' the atmosphere. To set the scene, the Greek Gods (or should that be gods) are in a fix. The rise of Christianity is causing them untold problems and Father Zeus has decided that one of the many deities who litter Mount Olympus must go to Hell. To be more precise, you, Poseidon, the non-swimming god of the sea are chosen to capture Hades' Helmet of Invisibility from the Palace of the Underworld. To add some zest to the quest, you have had all of your godly powers taken away.

You are informed of this at a party, one of those fifty year affairs, and the next thing you know you are facing the nine-headed Hydra who guards the gates of hell. First problem, how to kill a malevolent, multiheaded she devil?

Game for a laugh

Not to put too fine a point on it, the gameplay is excellent. The graphics, however, are not the finest we have ever seen, especially not from Magnetic Scrolls (the company who brought us Corruption among others). You are able to control the vertical positioning of pictures on screen using the cursor arrows to the right of the keyboard. In some cases, if not most, and especially after you have eaten, the best place to have the pictures is off screen. Two effects are available (although not mentioned in the rather flimsy accompanying documentation): these are stipple – which gives a pointillist effect – and dither which gives a rather blotchy effect. Neither do much to improve the graphic images.

So, at heart, what we have here is a text adventure. Unlike many similar games (Knight Orc and Scape Ghost to name a pair) you do not have to spend the first eight weeks of your life with the game attempting to get unwilling characters to join you in your quest. Nope, initially at least, you're on your own.

The humour of the game is kept to a pleasant level even with the massive amount of scope available. Dealing with religions is obviously fairly tricky ground of late. So, even if the aim of the game is to defeat Christianity it is unlikely that even the most zealous of zealots could get that upset. The main joke is that you (Posiedon) can't swim. Combine this with the fact that Charon, the ferryman of the river Styx, and Death, his constant companion, are gambling freaks and you get some sort of inkling as to the comic level.

Mything in action

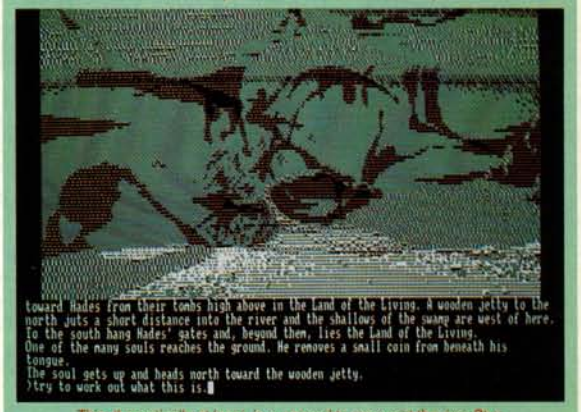
Text adventures rely on 'parsers'; these are the devices which allow you to communicate with the game in a nearly intelligent manner. Games are made or broken on the quality of their parsers. Myth is parsed with some style. There are a few "You are unable to do that" sentences flung at you (very 2001 "I can't do that David" they are too) but nevertheless some quite complex sentences can be entered at the keyboard. This ensures that the game retains a strong atmposphere and consequently holds your interest.

Now for an admission: Myth is not easy; in fact, we had to call the Official Secrets Helpline on one occasion. This is but an added bonus. Instead of waiting weeks for the clue sheets to come through the post, all you do is call the number, give your membership details and Jane's your auntie. With this in mind, the game can afford to be slightly more complex than its peers.

Don't let this put you off as the game itself is one of the most enjoyable we've yet seen on the PCW. For example, once you have managed to defeat the Hydra the going appears, in B movie terms, to be easy – too easy. There is far more to it than meets the eye and in order to accrue the 200 points which you need to win Myth, you will have to do a great deal of exploring.

For information about the Official Secrets club you should contact John Trevillian on 0279 726585. ■

Party! The Greek Gods get down... you get even more down when you're chosen to capture Hades' Helmet of Invisibility



This, theoretically at least, is supposed to represent the river Styx. It is quite possible that the artist was terrified at the time.

The plains of hell are laid out before you. Which one of the numerous paths do you take to complete your quest?

IN A NUTSHELL

In the immortal words of Wurzel Gummidge, "It's time to put your thinking head on". A superb example of adventure gaming. The only flaws are the lack of documentation and the appalling graphics. Aside from this, Myth should keep you interested for days, if not weeks.

PCW CHALLENGE

GRAPHICS	2/5	ATMOSPHERE	4/5
CHALLENGE	5/5	ADDICTIVENESS	5/5

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DRIVE M: FOR MEMORY

How to communicate directly with your M drive; Richard Cox explores the hidden depths of his PCW

Accessible Memory	Controlled by	Normal RAM Chips (TPA)	Special RAM Chips (Operating System)	(Screen etc.)
Addresses C000-FFFF	Port F3	Chip 87	Chip 87	
Addresses 8000-BFFF	Port F2	Chip 86	Chip 83	Chip 82
Addresses 4000-7FFF	Port F1	Chip 85	Chips 81/88	Chip 81
Addresses 0000-3FFF	Port F0	Chip 84	Chip 80	

These are the address ranges for the four chips which are switched in at any one time

These are the numbers of the ports which are used to control the chip switching

TPA means Transient Program Area. These are the four memory chips which are normally switched in when a program runs

The operating system blocks. For communications, the top Chip is the same for the operating system as for the transient program area.

These two Chips are used for the screen and character set in the positions shown

1) Output ports are the key, and the CPU identifies both chips and ports by their numbers; imagine you need to switch chip 82H into address range 8000H..BFFFH. The corresponding port number is F2H, so it is done by sending 82H to port F2H. The last column shows which chips contain the screen and character set.

```
Address  Actual values found in directory (hexadecimal)      Corresponding ASC characters
4000:  00 48 44 45 20 20 20 20 20 43 4F 4D 00 00 00 56   .HDE     COM...V
4010:  02 4C 4D 4E 4F 50 00 00 00 00 00 00 00 00 00 00   .LMNOP..........
4020:  00 4B 45 59 53 20 20 20 20 47 45 4E 00 00 00 18   .KEYS    GEN....
4030:  03 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
4040:  00 45 4F 44 20 20 20 20 20 53 55 42 00 00 00 01   .EOD     SUB.....
4050:  05 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
4060:  00 42 41 53 49 43 20 20 20 43 4F 4D 01 00 00 69   .BASIC   COM...i
4070:  06 07 08 09 0A 0B 0C 0D 0E 0F 10 11 12 13 14 00   ................
4080:  00 44 49 52 20 20 20 20 20 43 4F 4D 00 00 00 72   .DIR     COM...r
4090:  15 16 17 18 19 1A 1B 1C 00 00 00 00 00 00 00 00   ................
40A0:  ................................................   ................
....   ................................................   ................
....   ................................................   ................
4FC0:  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   ................
4FD0:  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   ................
4FE0:  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   ................
4FF0:  E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5 E5   ................
```

This is a hypothetical display of the drive M directory, shown as if it has been switched in to the 4000H to 7FFFH address range. The values are shown in hexadecimal and ASC representation; the latter is useful so that the names of the files are recognizable. Each value takes up one byte, so each row of the diagram takes 16 bytes. The addresses in the left column are those which contain the first byte of each row.

2) The memory capacity of a disc is divided into sections called datablocks. Each file on the disc begins at the start of a new datablock. KEYS GEN is the second entry in the list. The second row of the entry is a list of datablock numbers; these indicate where to find the data for the file. KEYS GEN occupies datablocks number 03H and 04H.

For most programs the normal arrangement of memory chips is perfectly adequate. Some jobs, however, require you to switch chips about, a procedure whose bare bones we described last month. Output ports are the key, and not surprisingly, the CPU (Central Processing Unit) identifies both chips and ports by their numbers; diagram one gives some details. Imagine you need to switch chip 82H into address range 8000H..BFFFH. The corresponding port number is F2H, so it is done by sending 82H to port F2H.

You may notice that the last column in diagram one shows you which chips contain the screen and character set. We will be discussing how these are laid out and how to use them later on. For the time being, though, we can start to examine disc drives in general and drive M in particular.

Directory

Among the first commands you learn when you start using CP/M is **DIR**. When you type this you are running a program which reads and analyses the DIRECTORY of a disc, producing a useful display. The directory is like the contents page of a book which tells you the names of the chapters and where to find them. The disc directory tells you the names of the files and where they are on the disc.

Drive M is different from the other drives on the PCW: you cannot take out the floppy disc and insert another. There is no disc in drive M because it is not really a disc drive. Actually, a large number of the memory chips are collected together to form a make-believe drive, and the operating system is fooled into playing along.

We usually refer to "drive M", but this could be misleading since it is not possible to store data on a drive, only on a disc – the drive is actually the equipment which reads from and writes to the disc. The expression "memory disc" would be more helpful. Let us say, then, that drive M behaves exactly like a drive which has one disc permanently inserted into it.

When data is required from a disc in a normal drive, the disc-head reads the patterns on the magnetic surface of the disc and these are translated into data. In the case of drive M, however, data is read from the 'disc' by switching in one of the memory chips and reading the data just like any other memory.

Organisation

Just as a book is divided into pages, the memory capacity of a disc is divided into sections called datablocks. Just as each chapter of a book starts on a new page, each file on the disc begins at the start of a new datablock. If a file contains just one byte of information, it must still occupy a whole datablock, and the rest of the datablock is wasted. On drive M the datablocks are 2k in size, which is why the sizes of files on drive M are always multiples of 2k.

The directory of drive M occupies the first two datablocks of the 'disc' (numbered 00H and 01H), just as the contents section of a book occupies the opening pages. It consists of a

list of filename entries (a possible sample appears in diagram two). Each entry takes up 32 bytes – two rows of the diagram – so 128 of them will fit into two datablocks (32 times 128 = 4,096 or 4k). That means that a maximum of 128 files may be stored on drive M, which is usually adequate.

Notice the entry for KEYS.GEN (the second entry in the list). The second row of the entry is a list of datablock numbers; just like the page numbers in the contents page, these indicate where to find the data for the file, i.e. KEYS.GEN occupies datablocks number 03H and 04H; the zeros which follow indicate the end of the list of datablocks; the number zero can never have any significance in the datablocks number list, since datablock 00H may not be used by a file – it is already used for the directory.

To gain access to drive M directly (or, if you prefer, to tamper with it), you have to know which chips contain which datablocks (see diagram three). It is now possible to find and read the directory in order to gain information about the files on the drive. More details in a moment.

Why you need to know all this...

You may well ask. If you are a memory-hungry programmer, there's good news for you. There is often a good deal of free space on drive M while a program is running. An understanding of the directory of drive M enables you to make use of this free space as an extension to the memory in the TPA (Transient Program Area).

What do you do? First you must copy the directory into TPA memory. Then you need a simple search routine to read the directory entries one by one, keeping a track as you go of the highest datablock number used. Remember that the directory has space for 128 entries, and they must all be examined. Entries which have E5H as the first byte indicate free unused entries or erased files, and these entries do not need to be examined.

Imagine that you have read the last entry in the directory, and the highest datablock number was 28H. You must assume that all datablocks with a lower number are also used, but those from 29H upwards are free for your program to use.

Diagram three indicates that datablock 28H is in chip 8EH, so part of this chip is used, but chips 8FH and higher are quite unused. They can be switched in to one of the address ranges and used to your advantage.

Of course, you must not create any new files on drive M or extend any existing ones while using this method, since the operating system doesn't know what you are doing; it still thinks that the datablocks which you are commandeering are free and will gaily overwrite your precious data if you give it the chance.

An example

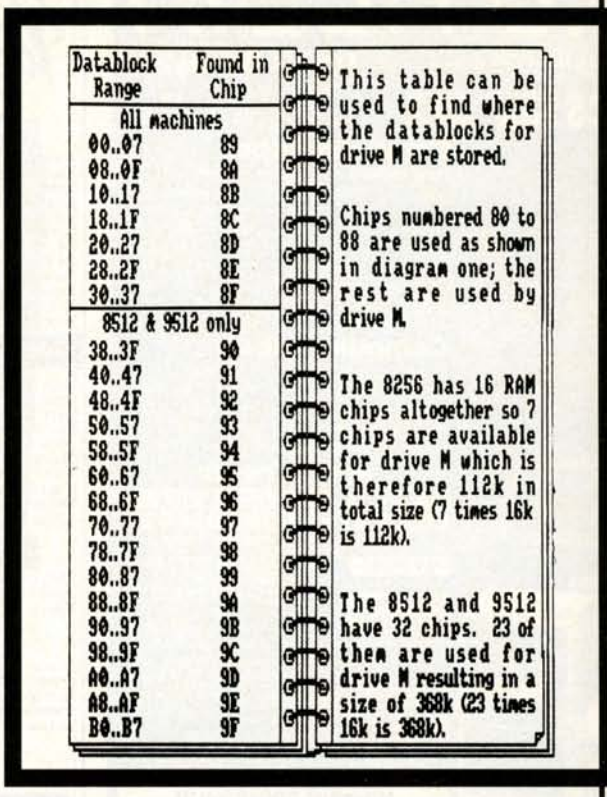
What can you do with all this data area? One useful facility is the temporary saving of screens during a program run. This is most useful in graphics programs: often a previous version of the screen needs to be recovered after the user makes a big mistake. Or you may have a full screen icon menu which has to be displayed instantly at frequent intervals (such a menu might otherwise gobble up 22k of your precious 64k).

The more conventional way to save the screen is by creating a file on disc and saving in it the screen data from memory chips 81H and 82H. Drives A and B will take some time to do that, and even saving it the normal way to drive M creates a noticeable pause in a program.

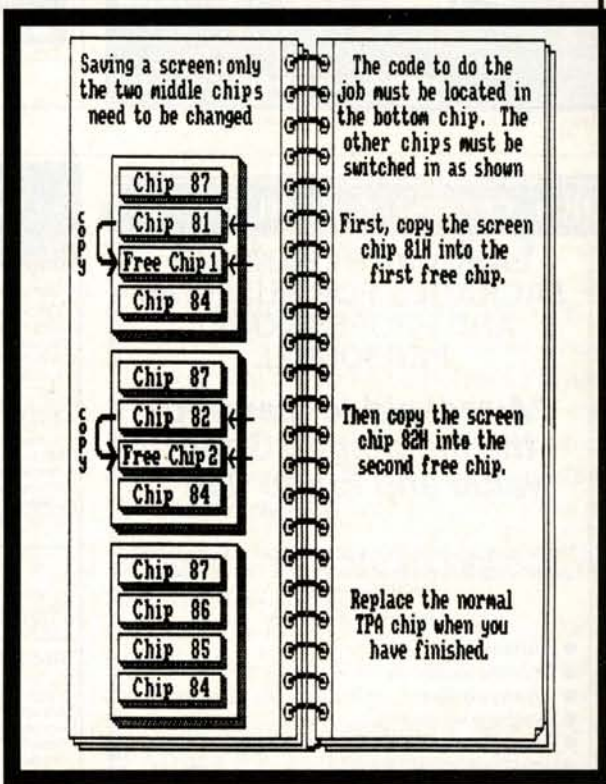
The quick way is this: assuming you have already carried out the above procedure to check which memory chips are unused and you have found at least two free chips, switch one of them into address range 4000H..7FFFH, and screen chip number 81H into the address range above that. Copy the contents of the latter address range (the screen chip) into the former (the free chip); you now have a copy of half the screen memory in your first free chip. Then, using the same address ranges, switch in your second free chip and screen chip 82H and copy the second half of the screen data. Restore the normal chips to continue your program. (Diagram three displays this action pictorially – you should notice that that only part of the screen blocks actually need to be copied; we will explain why next month.) Restoring the screen is simply a matter of reversing this procedure.

Next month

This article has described what is a useful procedure in its own right. However, the facility afforded is particularly useful in the field of graphics. Our next article will reveal how those screen miracles are performed. ■



3) To access drive M directly, you must know which chips contain which datablocks. It is now possible to find and read the directory in order to gain information about the files on the drive. Datablock 28H is in chip 8EH, so part of this chip is used. Chips 8FH and higher are quite unused. They can be switched in to one of the address ranges.



4) All this data area means that you can save - temporarily - screens during a program run. This is most useful in graphics programs. Switch one free chip into address range 4000H..7FFFH, and screen chip number 81H into the address range above that. Copy the screen chip into the free chip to have a copy of half the screen memory in the first free chip. Using the same address ranges, switch in your second free chip and screen chip 82H and copy the second half of the screen data.

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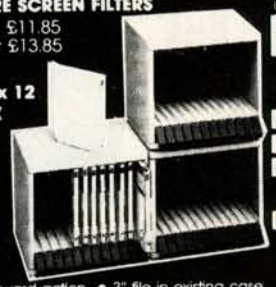

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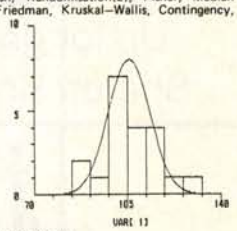

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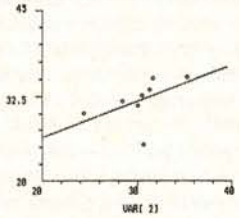

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TABS 'N' TABLES

Up for grabs this month are margin alterations and tab variations. Sharon Bradley introduces you to some very friendly Layout Editors

Just how much trouble you go to when ordering your information on the finished page can be an indication of how successful your overall communication will be. Up until this point in our LocoScript tutorial series, we have been working with the programs' default margin settings and have, so far, completely ignored the question of tabs.

Yet both of these facilities, which are easily accessed through each version's respective Layout Editors, can play an important part when it comes to arranging information in a form that is not only attractive but also easily assimilable.

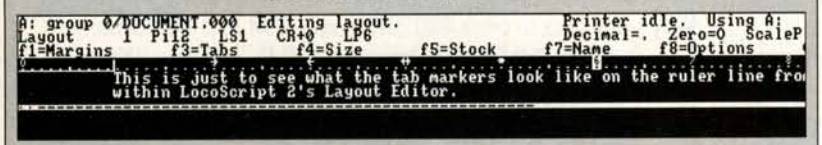
The use of tables in a document, for example, can enable the reader to immediately extract, at a glance, what is important on a page. These tables are invariably put together using a series of tabs – or points that are 'fixed' immovably along the ruler line at the top of the screen.

Every LocoScript document, irrespective of the version in which it is written (by that we mean LocoScript 1 or 2) has its own Layout. This contains all the information that the program requires in order to arrange the text on the page. Here you record where the left and righthand margins are to be placed, the position (and type) of any tabs that you use and, finally, whether the text on your page is to be justified or not.

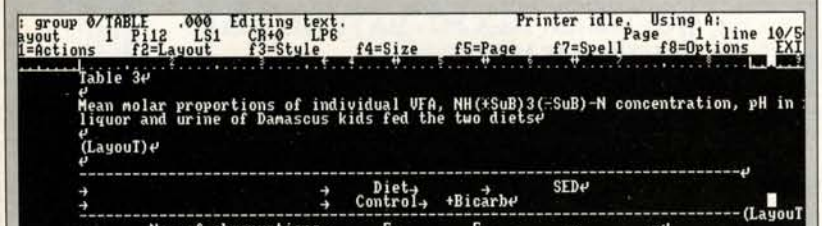
So how do you go about altering these parameters – from document to document and, sometimes even, from paragraph to paragraph? This month we're going to be looking specifically at margins and tabs.

LocoScript 2

1) Setting up new margin parameters in LocoScript 2. Decide exactly where on the ruler line you want to fix your new left hand margin. Slide the cursor to the appropriate point on the ruler line and press [f1] to bring the Margins menu onto the screen. The Set Left Margin option should be pre-selected. Repeat exactly the same procedure to 'set' a new righthand margin.



2) LocoScript 2's ruler line - complete with each of the different tab markings. The first is a Simple tab, the second a Right tab, the third a Centre tab and the fourth a Decimal tab.



3) We have incorporated two different layouts in the construction of this table. The first Layout contains the ruler line positionings of the tabs for Diet Control, +Bicarb and SED. After the continuous row of dashes that separates these column headings from the rest of the table, another Layout was set up. This included a right tab for the text on the left and three consecutive decimal tabs for the figures. We finished off with a centre tab.

LOCOSCRIPT 2

Let's start with the margins. [E]dit a file into which you have already typed some text. Our text consists of a piece of text which would fit between much narrower margin parameters. Press [f2] to bring LocoScript 2's Layout menu onto the screen. Select **Change layout**.

You will see a new set of information lines appearing at the top of your screen; these 'new' menus belong to the program's Layout Editor. Although your text is still visible on the screen, you will find that you are unable to edit it as the cursor has been disabled. Pressing any of the arrow keys merely causes the machine to bleep uncomprehendingly at you.

Decide exactly where on the ruler line you want to fix your new left hand margin. Let's say 25. Slide the cursor to the appropriate point on the ruler line by depressing the right hand arrow key. When the cursor is correctly positioned, press [f1] to bring the Margins menu onto the screen. The **Set Left Margin** option should be pre-selected; all you have to do is press [ENTER]. The lefthand margin will move to its new setting.

Repeat exactly the same procedure to 'set' a new righthand margin – at, say, 65. Don't forget to highlight the alternative option at the Margins menu.

Press the [EXIT] key to leave the Layout Editor. Your cursor will be immediately re-enabled so that you can carry on editing your text. To reflow the text into its new margin parameters, simply press the [DOC] key on the right of the keyboard; this instantly sends the cursor to the end of the document.

What kind of tab?

As we mentioned earlier, tabs are markers which are fixed on the ruler line and which allow you – on pressing the [TAB] key – to automatically begin typing consecutive lines of text from the same point. The beginnings of these lines are, therefore, vertically aligned. Tabs are indispensable when it comes to typing out lists and constructing tables.

Let's take a look at the different kinds of tabs that LocoScript 2 affords its user. There are four different types: Simple tabs, Right tabs, Centre tabs and Decimal tabs. Which one you use will depend on exactly which way you want your text to be aligned underneath it. Or you may choose to use a combination of different tabs within one table, as we have done for this article. Let's look at the differences between them.

Simple tabs: these are the most common and will align the lefthand edge of each consecutive line like so

First this line
Then this one
And so on ... simple really.

Right tabs: these will align the righthand edge of each entry and give a ragged lefthand edge like this

As you type in the text
It will shoot out the left-hand side
In a very unusual fashion
Like so.

Centre tabs: these produce ragged edges on both sides because they centre, one below another, each of the lines that you enter

It produces this sort of
strange effect.
See?

Decimal tabs: these are perhaps the most useful kinds of tabs to have around. Fix one of these on the ruler line and you will be able to type in a list of, say, financial amounts while LocoScript 2 automatically lines up the decimal points for you.

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Setting the tabs is an easy matter. Repeat the steps you've just taken to alter the margins, although instead of opening the [f1] Margins option, press [f3] for Tabs. Make the appropriate selection at the menu which is then displayed. To get rid of a tab, simply cursor to it using the right and lefthand arrow keys and press the [-] key to the right of the space bar. The errant tab will be cleared. Back in Edit mode, pressing the [TAB] key on the left of the board will take you immediately to your selected tab stop – whatever kind it is – so that you can begin typing in your perfectly aligned text.

Mix 'n' match

As well as setting up one Layout for an entire document, it is possible to prepare more than one Layout for use in the same file – as with a table, for example.

This effect is easily achieved by instructing LocoScript 2 to begin using a different Layout at the appropriate point in the text. After you've defined the new parameters, a special LocoScript (**LayouT**) code appears in the document and instructs the program to use them on the text that immediately follows it.

We have incorporated two different layouts in the construction of the table pictured at the bottom of the last page. The first Layout contains the ruler line positionings of the tabs for **Diet Control**, **+Bicarb** and **SED**. At 45 on the ruler line, a Centre tab was fixed. Note how the words are centred beneath that position. At 55, another Centre Tab was set for +Bicarb. Finally, a Simple Tab was selected at 65 for the SED text. After the continuous row of dashes that separates these column headings from the rest of the table, another Layout was set up.

At position 38 on the ruler line, for instance, a Right Tab was set. You can see how the lines under this tab have a jagged lefthand edge. At 45, the Centre Tab was replaced with a Decimal Tab, and this Decimal Tab was repeated at 55 and 65. Finally, at 75, a Centre Tab was fixed. The result, as you can see, is a polished, professional-looking table; see how all the decimal points are neatly aligned under each other.

Once you've informed LocoScript of the details of the Layout you want to use, the program remembers them and stores them in the (LayouT) code. This doesn't mean, however, that you are forced to stick with this Layout until you delete the current (LayouT) code in the document. Whenever you want, you can modify any of the details in it simply by placing the cursor at the appropriate point in the document where you want the new Layout to take effect and calling up the [f2] Layout Editor. Choose the **Change Layout** option.

LocoScript 1

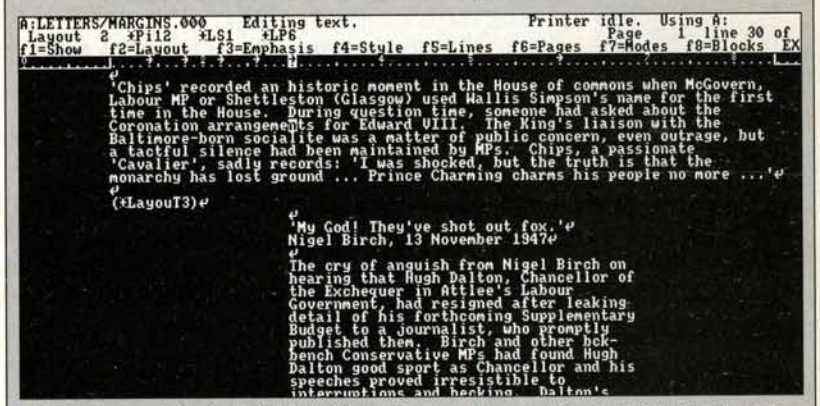
Changing your documents' margins under LocoScript 1 is quite a similar process. Again, open the file under [E]dit mode and press the [f2] key to open the Layout menu. Select the **brand New layout** option. To change the position of the left margin, press the downward pointing arrow key; this places the cursor on the empty and awaiting ruler line. Using the right and left arrow keys, place the cursor at the appropriate point on the line and press [f1]. As you can see from the information lines at the top of the screen, this is the key to press to fix the location of your new lefthand margin.

Move the cursor to the right to pinpoint the appropriate positioning for the righthand margin and, this time, press [f2] to set it. As with LocoScript 2, don't forget to press [EXIT] to re-enable the cursor so that you can return to your document.

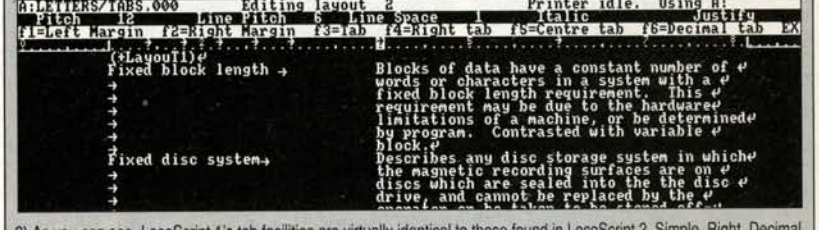
Once again, the procedure is virtually the same when it comes to making use of LocoScript 1's tab facilities. Open the document for which you are creating a new Layout under [E]dit mode and press [f2]. Again, highlight the **brand New layout** option in the second part of the menu and press [ENTER]. As with the margins, pressing the downward pointing arrow key will bring the Layout cursor onto the ruler line. All you have to do is position it on the line where you want to set your new tab and press either [f3], [f4], [f5] or [f6] depending on the type of tab required.

LocoScript 1 stores the new Layout and also gives it a number; this is always displayed on the left of the information lines at the top of the screen. As you scroll up and down a document that has incorporated several layouts, you will see the Layout number alter accordingly at the top of the screen as the cursor passes through successive layout territory. ■

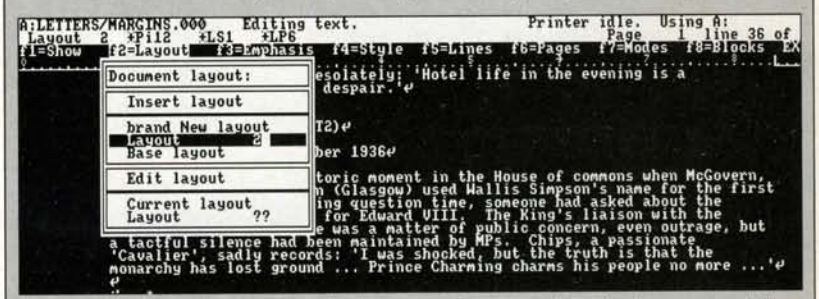
LocoScript 1



1) Moving the margins is a simple affair in LocoScript 1. Simply open the program's Layout Editor ([f2]), and press the downward pointing arrow key to bring the cursor onto the ruler line. Move it to the new position and press, first, [f1] to set the left margin and then [f2] to set the right margin. Press [EXIT], then [DOC] to see the new changes taking effect!



2) As you can see, LocoScript 1's tab facilities are virtually identical to those found in LocoScript 2. Simple, Right, Decimal and Centre tabs are easily 'fixed' anywhere along the ruler line by pressing the appropriate [f] key.



3)To re-use a Layout that appeared earlier on in the document, scroll back to see what number the program gave it. Then take the cursor back to the end of the document and press [f2] to open the Layout Editor. Move the cursor to the Layout ?? prompt and type in the old Layout number. Then press [ENTER] and [EXIT] to resume your editing with the 'new' Layout.

FAME!

How to cash in on the (rich and) famous: Nick Vandome demonstrates how a chance meeting can turn into a success story

If there is one thing that is guaranteed to help sell newspapers and magazines, it is features about famous people. Everyone does it; whether it is *The Economist* with a picture of Mrs. Thatcher on its cover or *The Sun* with Ten Things You Never Wanted To Know About Kylie and Jason. The fact is that celebrities sell copy. Many publications rely on stories about the famous in order to stay in business, which is why we are more likely to read about what the ubiquitous Miss Minogue has for breakfast than the fact that Elsie Smith at No. 42 is partial to a bowl of cornflakes before she goes off to work.

Naturally, all these celebrity features need to be written by somebody and while it is unlikely that Tom Cruise or Madonna will drop into your living room for an exclusive interview, there is no reason why the struggling writer slaving over a hot Amstrad PCW should not cash in on this extremely lucrative business.

My own encounter with a personality illustrates the potential of the celebrity market. It was probably one of the briefest meetings in history but it has resulted in numerous openings, totally disproportionate to the length of our interview.

A couple of years ago my local pub (the source of much of my inspiration) undertook to raise money for Muscular Dystrophy. They did this so successfully that they won a national fund-raising competition and the President of MD, Sir Richard Attenborough, came to the pub to present a trophy and meet some of the regulars who had helped raise the money.

It happened to coincide with the release of his new film, *Cry Freedom*, so most of the conversation was either about the film or MD. However, I had heard from a source (actually it was the bar manager) that another one of Sir Richard's interests was a multi-racial school in Swaziland where both the Mandela and Tutu children have been educated.

So when I met Sir Richard, I got a few basic facts about *Cry Freedom* and then I asked him about this school. He seemed pleased to talk about something else other than his film and he told me a bit about the school and the work it does; he even invited me to visit 'if I was in the area'. In all we spoke for about five minutes and then he moved onto the next regular, forgetting all about me.

Usually, five minutes'-worth of research earns me enough money to be able to afford a stamp for another begging letter to an editor, but I soon realised that my time with Sir Richard was going to become a five minute goldmine: with a famous name attached to them, my articles seemed to take on a new importance; *The Guardian* published one less than two weeks after my meeting with Sir Richard; Collins, the publisher, contacted me (not, unfortunately, with a multi-million pound advance for my latest book) and said they had seen this piece and could they use it in a book for teaching English to Italians; and an agency asked for a longer version for syndication around the world.

This seemed like one of my more successful writing ventures and I contented myself with a few cuttings in my

Who's where?

In London there is a company that specialises in dispensing information about the famous, as in who's coming where and when and the names of the representatives to get in touch with. It is rather an expensive service at £45 per month but if you think it would be worth it then contact: Diane Oliver, Celebrity Services Ltd., 93/97 Regent Street, London W1R 7TA. Tel: 01 439-9840.

Meet, greet and mingle with the stars!

The author, right, offers to write the script for Richard Attenborough's next film; the celebrity declines!

The easiest way to get in contact with a celebrity is at a charity event where, hopefully, they will be well disposed to talk to people. Check with your local pubs and clubs to see if their charity work would warrant inviting a famous person.

Aside from this, the best bet is when a celebrity is engaged on a promotional tour for his/her latest book/film/song etc. Generally they do not do these things for the good of mankind; they do them, understandably, to make money. With a little careful planning though you can get in on the act too: stars frequently hold local press conferences in whichever town they are in and it is worth telephoning your local newspaper to see who is coming and if there is any chance of attending one of these events. When you do this though, remember your all important angle as you will need something different to make you stand out from the crowd and sound original.

Book-signing sessions are also a possibility and although your time would be strictly limited here it is amazing how much information can be obtained from a couple of well thought-out questions.

Finally, there is the method that is the most hit-and-miss; writing to the people directly. Addresses can be obtained from Who's Who but remember you are approaching someone in their own home and out of the blue. Be professional and don't sound like a gushing fan or a groupie; state what you are doing, be clear and concise and, again, try and present an original slant for your article – if you discover a celebrity has a passion for building life-size models of the Eiffel Tower out of matchsticks, then you might be better off dwelling on this rather than their latest blockbuster film or book. At worst you will get a curt rejection (nothing new for any self-respecting writer), at best you will be granted an interview and somewhere in between you will get a letter that will contain some useful information for your article.

scrapbook and, more importantly, a few cheques in my bank account. However, my fairy godmother would not let sleeping Attenboroughs lie and six months later I was travelling in southern Africa and decided to take Sir Richard up on his offer of visiting the school.

I stayed there for two days, resulting in another article for *The Guardian* and one in a national magazine in Australia. My meeting with Sir Richard had now turned into the most profitable one of my life and if I could repeat this everyday then my bank manager would be a much happier man and I would be writing this from the Caribbean.

Unusual angle

The three most important things that I have learnt from this experience are: 1) It is possible for anyone to gain access to famous people. 2) When you do meet them, you will probably only have a short amount of time with them – so make the most of it. 3) Your celebrity story is a lot more marketable if you manage to unearth an unusual fact about your subject – the perennial question of 'an angle'.

Once you have tracked down a celebrity and you have them standing, sitting or lying in front of you then you will probably only have a couple of minutes to talk to them – so don't come over all stage-struck. Even at charity events there could be over a hundred people for the celebrity to talk to so if you waste time you will be lost. Be professional and you will get a professional response.

This is where your research comes in. The ever useful *Who's Who* should be consulted for the hobbies of the people involved and also try and discover any interests they have outside the field in which they are known. Whatever you do, avoid talking or writing about the obvious since every Tom, Dick and Cronkite will be writing about this so your chances are probably zero downwards in this area. My piece on Sir Richard was only so successful because it linked him to something that very few people knew existed, far less thought to write about.

Once you are armed with your stunning exclusive on why Kylie would just like to get away from it all and open a small corner shop (quite true I assure you) then make the most of it in your marketing and remember that editors are delighted to get those famous faces onto the covers of their publications. If you have picked up an unusual angle then emphasis this and show how it will give a contrast to the more conventional pieces on offer.

Illustrating the point

After, hopefully, your piece has been published then your work is just beginning and you should try and squeeze every last penny out of your idea. There are several agencies that specialise in syndicating celebrity features and these would be worth contacting if you think you have something that might interest them.

Names can be found in the *Writer's and Artist's Yearbook* and one that I have found helpful in the past is *World Press Network* (112 Westbourne Park Road, London). Also, if a charity or an unusual organisation connected with the celebrity has been mentioned in the piece, then send a copy to them: they will be grateful for the publicity and you might get all kinds of weird and wonderful opportunites as a result – like being invited to Swaziland!

Although your own immortal words are the most important component in any piece on the famous another, vital aspect is getting pictures to illustrate you masterpiece; the public do not only want to read about their favourite stars, they want to see them too. With this in mind it is worth taking your own photographs – colour transparencies or black and white prints.

However, for those who do not fancy themselves as the next David Bailey a safer bet is to get photographs from the celebrity involved or their entourage. (Personalities always have an entourage, which acts like a cross between a bouncer and a life-support system.) If you tell them you are hoping to write something then they will probably give you a couple of publicity shots, but make sure that they are unsigned. Alternatively, you could try the film companies, publishers and television companies for pictures of their stars. When I met Sir Richard I was given two prints from *Cry Freedom* and then I wrote to the distribution company of the film, UIP, who sent me two more photographs.

One important thing to remember about celebrities is that fame is a very relative thing and it is not always necessary to get hold of an international star to qualify for the title of celebrity interview. Admittedly, the national newspapers and certain magazines deal with celebrities who are instantly recognisable, but don't forget about the local newspapers and specialist magazines: Joe Soap who has just won the local Tiddlewinks competition may be considered a celebrity in his home town for a short while (probably a very short while) and although the inventor of LocoScript would be just another computer programmer in the eyes of the nation he would be looked upon as a celebrity (or possibly even a god) by the readers of *8000 Plus*.

As well as the obviously famous people don't overlook the fact that there are thousands of people who are well known in their particular field and it is frequently just a case of finding the right market in which to exploit this. The next time you see a famous face staring out at you from a magazine or newspaper remember the potential for writing about celebrities – if you manage to write about enough of them then you might even end up being one yourself! ■

Nick Vandome, a writer who is determined to exploit the potential of the celebrity market

Writes of passage

After graduating from Edinburgh University in 1985 I followed what I considered to be the only logical course – I wrapped up my newly acquired MA and took it off to Australia. I spent a year there and worked in a variety of jobs ranging from cocktail barman to grape-picker.

When I returned to the UK, I decided to try and help pay off my debts by writing about Australia. Someone must have been smiling on me that day because the first piece I wrote was accepted by *The Guardian* (living proof that miracles do happen in the writing world) and I subsequently also sold material to *The Daily Telegraph*, *The Scotsman* and various magazines.

I planned another excursion around the world, this time to Africa, Asia and Australia. Before I left though there was further proof of literary miracles – an agent read one of my magazine pieces and asked me if I would like to write a book about my forthcoming trip. No prizes for guessing the answer to that one!

I spent the next seven months travelling through fifteen different African and Asian countries on any form of transport that was foolish enough to cross my path. Having survived this, narrowly, I then sat under a coconut tree in Australia for five months writing about my trip. I sold more pieces to the national newspapers in the UK and also several national publications in Australia.

Twice during the year my writing aspirations were saved by the appearance of an Amstrad 8256: once in the unlikely setting of the African bush in Zimbabwe and again on the beaches of the Great Barrier Reef.

At present I am trying to put my agent's mind at rest by satisfactorily completing the book while at the same time looking for a prime job in journalism.

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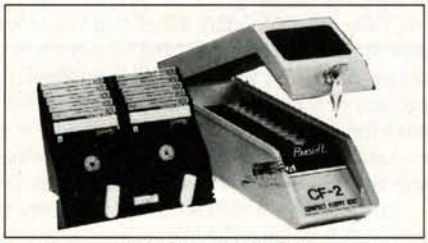

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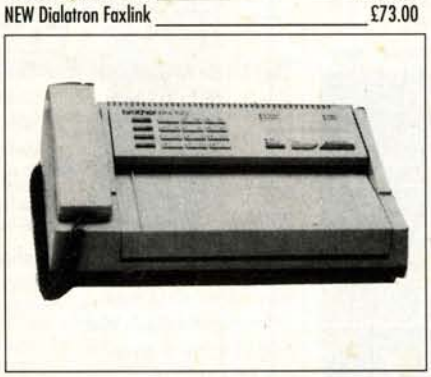

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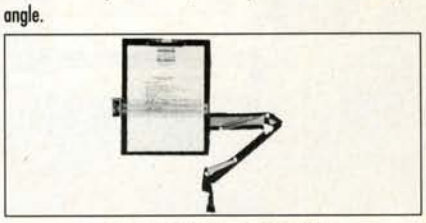

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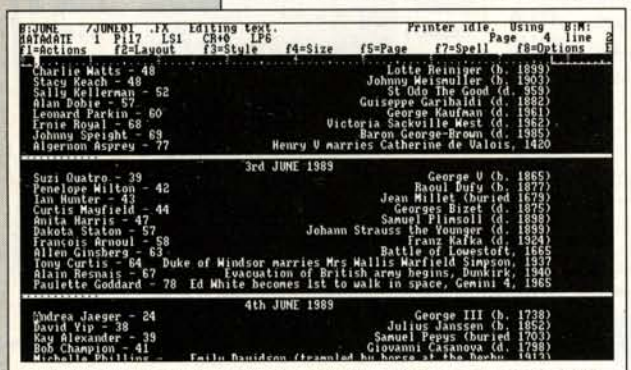
Most of us have a fascination with facts. After all, this is why books like The Book Of Lists and The Guinness Book Of Records continue to sell in vast quantities year after year. This is why the Mail On Sunday colour supplement starts off its pages with a collection of, at times bizarre, lists (my favourite being one of the unused headlines from a section headed "10 Headlines not yet used by Sunday Sport" – Lager Lout Explodes After 25 Pints!). This is why quiz machines are springing up in just about every public house in Britain, much to the annoyance of some and what seems like the full-time employment of others. And this is why the program Pocket Datadate was written.



1) Pocket Datadate is fully operational under LocoScript 2. As you can see each day is treated as a page and is fairly packed with detail – birthdays on the left and anniversaries of important occasions on the right. Everything you ever wanted to know about a particular day – and even more you didn't – can be found here.

2) To save you scrolling through the whole file in search of the gen on a particular day, just open the appropriate file under [E]dit and press [f5] for the Page menu. All you have to do now is enter the appropriate page number which will, of course, coincide with the number of the day in the month; January 10th, for example, will be page 10 in the January file.

3) Pocket Datadate is so called because it will only print out Filofax-sized pages. You can print out a whole file, one day after another, or (as is seen here) choose to print out one page individually. Just enter the appropriate page number in this grid and away you go.

Pocket Datadate is fully operational under LocoScript 2 (indeed, its creators have assumed more than a fleeting acquaintance with that program in the user) and is so-called because the pages which it produces on printout have been specifically designed to fit into a Filofax.

Births, deaths and marriages

What do we get when we load up LocoScript 2 and take a look? We find something that gives us cause to admire the industrious person who typed until their fingers must have bled, and to admire equally the research team behind it all.

This is because Pocket Datadate is nothing more or less than a vast collection of facts arranged into a number of different files spread over the eight LocoScript groups. These files are arranged by the month of the year, using both sides of the disc, as the facts concern purely date-related trivia like births, deaths, and anniversaries.

Each file (generally there are two files for each month) is split up into individual pages, and each page occupies one day. Hence, really, the need for LocoScript 2. Trundling through earlier versions trying to get to the ninth page in the December file, so as to find out what happened on that day in bygone years, would take quite some time.

LocoScript 2's ability to jump to any given page makes life a lot easier, and you might be able to find that Coronation Street was first broadcast on the 9th December 1960, or go back a few pages and perhaps discover that alcohol prohibition in the U.S.A. ended on the 5th December 1933 – oh happy day.

Sign in, sign out

All the information on any given page can, of course, be printed out, but because the pages have been set up in Filofax format, they tend to look a little lonely on a standard sheet of A4.

However, it's the facts that are the heart of the thing, not the final printout. Not even if that printout can be tailored to include all the signs of the Zodiac? Another LocoScript 2 feature that allows us to re-define characters has been used in the package, and those nifty little characters for the Zodiac (a load of bull in the case of Taurus) are now ours to do with as we will.

Thus for your twenty five quid you get fairly rapid access to all manner of weird and wonderful facts. There are upwards of about twenty entries per day, which you might think would be hard to fill, but no.

On which date in 1989 did Emmylou Harris reach the age of 42, Penelope Keith reach 50 and Sir Jack Brabham arrive at 63? All on the 2nd of April. On the anniversaries' side for that same date, you could choose from Emile Zola being born in 1840, beating Hans Christian Anderson by 35 years but lagging 99 years behind Marvin Gaye.

A quick inspection of my birthday shows me that I share a date with the Boston Tea Party, although it took place some 184 years before I arrived on the scene. Now you can all go and work it out!

So what is the point of it all? Well, if you crave an immense desire to learn, or at least read about, thousands and thousands of facts, then it will be of invaluable use. Similarly, if you regularly have to put together the kind of topical quizzes that throw out the standard 'What happened on this date in ????' sort of questions, Pocket Datadate will almost definitely be a welcome addition to your PCW disc box. ■

POCKET DATADATE

PLUSES	MINUSES
▲ Program updated on the 1st Jan '90	▼ Only works with LocoScript 2
▲ Excellent tool for quiz-masters	▼ Documentation is currently on disc
▲ Very informative	

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THE SCRIBE BY YOUR SIDE

The Public Domain package that truly packs a punch; Steve Patient gets into the ring with the multi-talented Scrivener!

Copy write

Scrivener is copyright to MML Systems, and they will sell you a copy with a printed manual if you prefer. It is also in the public domain in the UK library (volume 43) of the CP/M User Group (UK). Any similarity between the mathematical operators of Scrivener and C are entirely intentional – the authors wrote it in that language.

Scrivener is a genuinely innovative program that has been designed to take the strain out of any text-based operation. It combines the functions of a programming language, a macro processor, a spreadsheet and a mail merge program.

Scrivener files are simple text files: they can be produced using virtually any CP/M-based text processor (you might have trouble with straight LocoScript files). It's incredibly easy to use these Scrivener files; simply type:

SCRIVNER INPUT.FIL OUTPUT.FIL

or, alternatively, just type **SCRIVNER** and you will be prompted for the names of the files.

```
[[t   sx ]]   [[t   sy ]] [[t sxs   ]]   [[t sys    ]]  [[t sxy ]]
=============================================================================

Population coefficient is given by          sum(xy) - sum(x)*sum(y)/n
                                  ------------------------------------------
                                  sqr[((sum(x)t2)-(sum(x)t2)/n))*((sum(y)t2)-((sum(y)t2)
/n)]

                                =          [[o sxy ]] - [[o a= sx*sy/n]]

Press RETURN to Continue
                                  ------------------------------------------
                                             sqr[ [[o b=sxs-((sxt2)/n)]] * [[o c=sys-((syt
2)/n)]] ]

[[defS.1]]

                                =    [[o a=sxy-a]]
                                     ------------
                                     [[o b=(b*c)t0.5 ]]


[[defS.4]]

                                = [[ a/b   ]]

M)
```

This is a sample of a file used to calculate population co-efficients and is included here to demonstrate that Scrivener can handle any mathematical requirements you might have

```
M)type poem.scr
#random pronoun,,I,,We,,He,,You,,They
#random verb_1,,like,,hate,,want,,grasp,,spurn,,love
#random verb_2,,give,,send,,break,,make,,bend,,eat
#random verb1,,verb_1,,verb_2
#random adj1,,pretty,,ugly,,comely,,podgy,,piebald,,punk-rock
#random noun1,,maiden,,tractor,,hedgehog,,pot-plant
#random verb2,,a'sitting,,reclining,,recumbent
#random phrase1,,look again,,run to catch it,,put some specs on,,shakes ones toupee
#random phrase2,,find it isn't there,,simply cannot care,,think it isn't fair
#random phrase3,,wasn't just the thought of it,,couldn't have my mistake,,shouldn't real
 have occured
#random phrase4,,think it such a crime,, feel so at the time

pronoun verb1 a adj1 noun1 verb2 on a chair
and when pronoun phrase1 pronoun phrase2
it phrase3, pronoun phrase4
but any way, I have to say, I do it just to rhyme.

M)
```

The input file, POEM, uses the #RANDOM command to choose between various collections of nouns and verbs.

```
M)type deprec.scr
#input _NAME_,,Enter the name of the asset (max 20 letters)
#input _COST_,,The cost of the asset was
#input _LIFE_,,Enter the estimated lifetime of the asset
#input _ENV_,,Enter the estimated disposal value of the asse
[[def 8.6]]
[[d of=(_ENV_/_COST_)]]
[[d root=of^(1/_LIFE_)]]
[[d rate=100-(100*(root))]]
[[def 8.3]]
#overtype
[[dn deprec.out]]
[[dp the rate of depreciation of the _NAME_
#insert

M)
```

This file has been designed to calculate depreciation on capital equipment. Used in standard terms, this kind of file can form the basis of a forms library

The program takes the input file you've prepared and processes it. Instructions for the person using the file are sent to the screen using the #ANNOUNCE command (they can include control codes). Information is picked up from the user and Scrivener does whatever it's been asked to with it. An output file is then produced in which all the instructions have been carried out. Scrivener can process numbers and text. It can perform the kind of maths that only a statistician might need, including such exotica as hyperbolic cosines and arctangents. It copes equally well with simple columns of figures. More importantly, it always produces output that is formatted to your specific requirements. This makes it ideal for the generation of invoices, catalogues, orders and other standard business requirements.

Text distinction

Scrivener contains a complete programming language designed to make the generation of business forms an automatic process. Constructing Scrivener files requires practice, but once they've been set up, they can be used forever, modified as required, and save hours of drudgery.

Since all the processes Scrivener can perform are carried out in a file full of perfectly clean ASCII text, the program needs delimiters so that it can differentiate between normal text and information on which it must act. The authors have chosen to use double square brackets – [[34.87]] – like so for the latter. It's highly unlikely that you'd use double square brackets for any other purpose in ordinary text.

Instructions and numbers inside these brackets will be processed and the results inserted into the output file (without the brackets, naturally). Further switches can be included so that text is either left in its original position – for tables and such like, or closed up again. The latter might be required if a total was being inserted into the text of a quote, for example. In fact the way in which information is processed and formatted is completely flexible.

There are instructions to delete lines which occur in the input file, so that calculations, for example, don't show up in the output. Any lines that have no result (perhaps because certain options aren't being followed up) can be prevented from appearing in the output file.

Spread your wings

The way to think of a Scrivener input file is as a model. It contains all the text that will appear in the output file or else it contains the means to obtain that text. This will involve asking questions of the user and almost certainly performing various operations, depending on the information gathered from the user.

Anyone familiar with the idea of a spreadsheet model will recognise this approach, and indeed, Scrivener can be used to build stand alone spreadsheet models with specific functions. These will be far friendlier than a real spreadsheet, since any amount of help and direction can be included. Field widths can be defined and the information can be validated.

Unlike using a mailmerge program with a word processor, you never get to see the internal workings of Scrivener – unless you actually want to. The POEM file in the screenshot (one of the many examples from the Scrivener disc) displays only a few asterisks to show that it's working. All of the final result is sent to the output file.

Not so with the file DEPREC (see the screenshots) which calculates rates of depreciation on equipment. This needs to prompt for three input values as well as a text string, and writes just a single line to its output file. And before you all write in to say how easy this is to do in BASIC, remember that this kind of calculation can just as easily be embedded in a standard letter. The end result might then be a neatly-tabulated calculation.

The same letter might prompt you for the name and address of the recipient. This isn't the same as doing it with LocoMail either. All you need to see are the various prompts asking for the information required without any of the confusion inherent in doing the same thing in a mailmerge program. The way Scrivener asks for information need bear no relationship to the way it finally presents it. This can make complex merging applications much easier to work through. ■

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Do you program your PCW?

YOU NEED TO READ

"PCW: Streamlined BASIC"

by Geoffrey Childs

'Streamlined BASIC' is a new concept in PCW publications from PCW-World. The package includes a book and a disc so that all the examples in the book can easily be used on your PCW. The book and the programs have been written by Geoffrey Childs, who is probably best known to PCW users as the main programmer of Lightning Basic. He has also been a contributor to several computer magazines including 8000 PLUS. The book was written in response to two questions that frequently appear in the correspondence columns of PCW magazines. It will answer many of your questions too!

"I've read the manual. I've written a few programs in Basic. Where do I go from here?"

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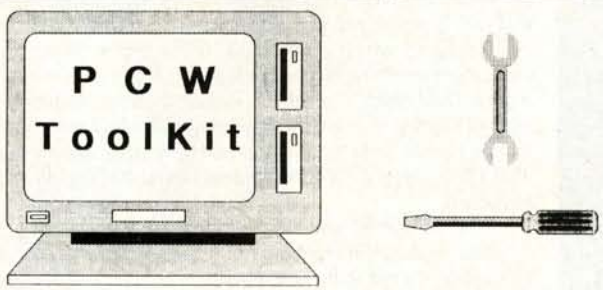

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CLASS IN POCKET

Microwriter Systems' AgendA represents a fairly radical departure from the 'normal' electronic organiser. Rod Lawton investigates

The AgendA costs £195 and is available from Microwriter Systems on 016850300

At first sight, the AgendA, like other electronic organisers, seems to do little more than its paper equivalents – but it actually does it very much faster and better. The AgendA will let you check phone numbers and addresses in seconds, and when people change offices or move house, you can update their entry quickly and 'cleanly' – no more multiple crossings-out on dog-eared pages.

But there's more to it than that, of course. The AgendA's powerful and comprehensive string searching facilities let you pinpoint names, addresses and notes from the scantest of information. Say, for example, you couldn't remember either your dentist's name, address or telephone number. Simply keying in **D E N** at the Find prompt will bring up the appropriate entry in moments. You can't do that with an ordinary filofax.

Thet Microwriter keypad is surely the AgendA's most striking feature. In addition to the special keys and for those who find the Microwriter principle just a little too strange to tackle,the AgendA shares the alphanumeric and function keys of other organisers.

Inevitably the standard alphabetic keys are quite small, as they are on any pocket organiser. And, as on other organisers, they are arranged strictly alphabetically – frankly, a pain in the neck for people used to QWERTY layouts. This makes them slow to find and slow to use.

The AgendA's famous Microwriter keys aim to get round this problem. The five large keys are arranged in a semicircle to correspond with the fingers of the right hand (left-handed people could use the keys too, but not quite as easily). The principle is that by pressing the keys singly or in combinations of two, three or four (the letter "p" is all five), you can not only type all the letters of the alphabet, but insert punctuation, carriage returns and even carry out AgendA functions.

The Microwriter keyboard may seem a somewhat bizarre concept, though it has been used before (remote keypads for PCs, for example). The strange thing is, it actually works. It's easy to learn, too – as far as possible the key combinations have been arranged to mimic the shapes of the letters they correspond to. The AgendA's keypad is not as quick as a conventional QWERTY keyboard, however. Microwriter say that with practice you will soon be writing as quickly as you can longhand, which is about 20-30 words per minute (a competent touch-typist can work at 50 words per minute or more). Their claim, if anything, is over modest. Within an hour of starting to learn the key combinations, I was typing as fast as I could write longhand – certainly substantially faster than I could type on a conventional alphabetic organiser keyboard.

This, combined with the AgendA's quite good text editing facilities, makes the machine not a bad portable word processor. It's not in the same league as a proper portable like the Z88, but it's streets ahead of the Psion Organiser when it comes to writing memos or letters on the train. Longer document size is limited to around 1,000 words, but the AgendA's 32K RAM has been designed to accomodate several such files. That's always assuming you haven't got too many addresses stored away.

One pair of drawers?

The AgendA's principal function is as a portable database of all those names addresses, important dates, timely reminders and so forth. However, instead of catering for all these needs via a set of different applications, the AgendA really only uses the one – although at first it seems there are many more.

The machine has a very simple – yet powerful – operating system. Names and addresses or appointments are saved as an individual file and then stored in one of a number of directories, or 'drawers'. New users are told initially of two such drawers – the "o" (ordinary) drawer and the "d" (diary) drawer. Entries saved to the ordinary drawer just contain the bare information, while diary entries are 'date-stamped'.

The principle is that you can search either the whole memory contents or individual directories for selected strings

Comming Soon

The AgendA has certain default comms settings which the advanced user can alter at will, but which are quite satisfactory for simple communications. You will need a serial lead, as supplied by Microwriter Systems, and nothing more complex at the PCW end than good old PIP and an RS232 interface. (Make sure that both the AgendA and PCW are switched off while you connect the leads.)

One other problem likely to dumbfound the uninitiated is the fact that PIP on the PCW needs an instruction at the end of each transmission to tell it to stop receiving and save what it has to disc. If it doesn't get that instruction, your PCW will happily wait for ever for the file to end (i.e. crash). What's needed is a special file in the AgendA's Z drawer as follows: ***#26***. The machine will then signal the end of its transmission and the PCW will be happy. The procedure for sending files, then, is as follows:

1 Switch on the AgendA, select the file(s) you want to transfer and then simply follow the instructions in the manual for printing a file. A 'Printing' message will appear while the machine waits to find a 'printer' – in this case the PCW.

2 Boot up CP/M on the PCW. Type **SETSIO 1200 XON ON**. This sets the PCW to receive at 1200 baud, the AgendA's transmission speed.

3 Still on the PCW, type **PIP**. After a moment an asterisk should appear in place of the A> prompt. Now type **FILENAME=AUX**: (Obviously you can make up your own filename). The drive will whirr briefly, and at the same time the 'Printing' message will disappear from the AgendA's screen. When the asterisk prompt reappears on the PCW you will know that the transferred file has been saved successfully. It can then be imported into Protext, LocoScript or any other word processor.

For some reason, when we transferred files, the PCW would only save them with CP/M and PIP freshly loaded. Subsequent transfers failed. We imagine this is due to a minor incompatibility in the comms protocols and could probably be solved quite quickly by an adept dabbler.

The procedure for sending data from the PCW to the AgendA is only slightly different. At the AgendA end, you must open up and be editing an empty file in the y drawer before you start the transfer. Then simply type **AUX:=FILENAME** on the PCW and the words should appear on the AgendA's screen right before your very eyes.

or keywords. In the case of diary entries, you can search for specific dates and times as well. The AgendA actually offers 26 individual drawers, one corresponding to each letter of the alphabet. This makes the organisation of information and its subsequent ease and speed of retrieval far, far better.

When the AgendA is connected to a printer or another machine, its search facilities, in conjunction with a certain degree of planning, will let you print out specially selected batches of files – 'conditional' printing. For example, a salesperson could produce lists of all those clients they've yet to visit. Or you could print out lists of all those people who sent you Christmas cards last year, and to whom you didn't return the greetings of the season.

Thrown in for good measure are an alarm function – which allows you to set an infinite number of alarms up to many years ahead – and a calculator.

The construction of the AgendA is impressive – though perhaps it should be at the £200 asking price. The small alphabetic keys don't feel particularly light or responsive, but thick-fingered users needn't worry because the keyboard is designed to detect the key receiving the greatest pressure. In theory you could hit half a dozen by accident, and the right character would still appear on the display.

Similarly, the Microwriting keys do not feel particularly decisive. This is worrying when you consider that each entry relies on two, three or four of them being pressed successfully – and simultaneously. This problem too has been cleverly solved. The keys only register an input when they are released, rather than when they are depressed. This means that the character registers only when the last finger leaves the last key. Providing you have all the right keys pressed simultaneously at some stage, there will be no error.

The screen display doesn't immediately inspire. The letters are large and readable, but the display area is not particularly big. The results are rather ragged and amateur-looking screens which lack variety and do nothing to show off the machine's true potential. The Psion Organiser is much better in this respect. Slimmer than the Psion, though, the AgendA will slide easily into a jacket pocket. It comes with only a soft wallet for protection, however – unlike the Psion with its rigid sliding case.

Who needs it?

Nearly all PCW users are frequent writers, and the AgendA's Microwriter keypad is an excellent solution for users who need to work away from their machines on a regular basis. And – importantly – the AgendA sends information to the PCW in just the same way that it sends to a printer.

The AgendA is far from being the expensive novelty such organisers can at irst appear to be. If you want it to, this machine can function as a very powerful and ultimately indispensible adjunct to your PCW. ■

Mind your language

Microwriter Systems have also developed two language cards English-French-English and English-German-English (£35 each) which slot onto the back ports of the Agenda. Enter an English word and you will be presented with its foreign equivalent, plus a list of associated words and phrases. The company are currently looking to expand their range with the release of Italian, Spanish and Dutch language cards later on in the year.

AGENDA

PLUSES	MINUSES
▲ Excellent Search facilities	▼ Screen still guite small
▲ Maximum memory available is 94k	▼ Agenda won't lie flat with RAM card inserted
▲ Good text-editing facilities	
▲ Microwriter touch typing	

PERFORMANCE 4/5 EASE OF USE 4/5 DOCUMENTATION 5/5
8000 PLUS VALUE VERDICT 13/15

The Second Opinion

Gunter Wittenberg puts the AgendA through its paces

Gunter Wittenberg is a firm advocate of portable computing. He is the proud owner of not one, but three PCW 8512s, two of which are housed in his Acton-based engineering office. The third occupies pride of place in the study of his West London home.

Until recently, however, transferring a collection of chattering 3" discs between home and work in his coat pockets was the nearest Gunter got to successful portable computing. That is, until a few months ago when he bought his AgendA. We asked him what prompted him to make this purchase.

Gunter owns up to having had more than a fleeting acquaintance with other portable machines in the past, none of which proved entirely satisfactory. 'The main quibble with portables in general tends to be their small screen size and certainly this was where the Psion fell down quite badly for me. The Sharp, on the other hand, didn't strike me as being a particularly adaptable machine. I continued to look around until I found something I could take seriously; the AgendA fitted the bill.'

When it came to forming an opinion as to the value of his new acquistion, Gunter had his own quite stringent tests to apply.

'I always look at how easy it is to get information that you have keyed in out again,' he explains. 'The retrieval is everything. With some portable computers, you have to be able to enter as much as the first word of the message that you stored in the machine in order to retrieve it. Now in my opinion, if you can do that successfully, you can probably remember the whole of the message anyway. Slightly self-defeating, I think.'

Gunter is definitely impressed with the AgendA's Search facility. ' All the data is stored in drawers, a system which allows you to keep different kinds of data in separate groups. You can search for a text string simply by typing it in. As each letter is typed in, the number of files containing that string are displayed. The nearer you get to completing the string, the fewer files are shown, thereby narrowing the search – eventually – to the required file.'

Although portable computers like the AgendA are often called electronic aide-memoires, Gunter prefers not to use its diary facility. 'I personally find it easier to use a diary if I can see a week or a month at a time,' he explains. Having said that, the machine now goes everywhere with him nestled firmly in his waistcoat pocket. (Weighing in at over a pound, it was starting to tug his suit pockets out of shape!) He realises that it can be just as easy to write things down on a piece of paper, but believes that the real value of using an AgendA lies in the certainty it gives you of knowing that everything is contained in one place.

We asked him how he got on with 'microwriting', the rather unusual five-finger method of touch-typing that the machine requires its operator to use. His verdict was certainly a favourable one. 'To the uninitiated, it can look very off-putting,' he admits. 'But once you have summoned the determination to get to grips with it, it's really very simple and well worth learning. The alternative – lumbering your way clumsily around a small, alphabetically-ordered keyboard – is totally unfeasible.'

Back at home in the sanctum of his study, transferring the data collated on the AgendA to his PCW 8512 couldn't look easier. The only proviso he does make concerns the fact sheet that Microwriter Systems send out with the machines about AgendA-PCW transfers: 'It ain't necessarily so,' he cautions with a laugh. 'Mail 232 would not retain any settings and was forever returning to the baud rate I didn't want.'

Gunter enlisted the help of a fellow member of the Middlesex PCW User Group (which he religiously attends every fortnight) and succeeded in rigging up a self-booting Mini Office Professional disc for his PCW which enables him to use the Comms module for his data transfers. The only alterations he made to the AgendA's default transfer settings (1200 baud rate, parity off, 8 databits) concern the text height and margin settings. It's then a simple matter of 'inserting' the text into his LocoScript documents.

'It's definitely a case of the parts being bigger than the whole,' remarks Gunter. 'While the AgendA is excellent for collating the data, I find it much easier to edit and prettify it on my PCW screen using LocoScript 2.'

Gunter feels that the next step might be to expand the basic memory of his AgendA (32K) to 64K internally, an operation that costs £50. All he then needs to do to access a maximum of 96K is to slot the 32K memory card, supplied with the AgendA, into the underside of the machine.

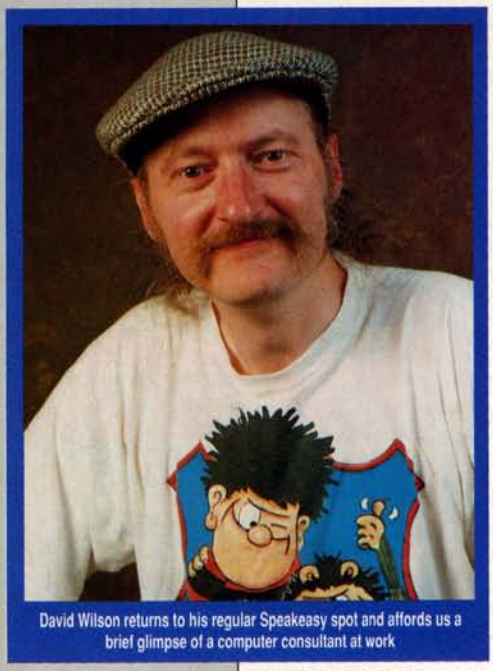
His final verdict? 'The AgendA has certainly met my expectations; it's versatile and good value for money. I wouldn't be without it!'

Sharon Bradley

COLUMN

SPEAKEASY

Whatever the application, some rules of computer consultancy are golden; David Wilson lifts the veil on software advice merchants and shows just how the other half lives



David Wilson returns to his regular Speakeasy spot and affords us a brief glimpse of a computer consultant at work

It must be awful to be the Prime Minister, or the manager of the England football team, or the editor of 8000 Plus. We all know exactly what they do, and we're all convinced that we could do it much better.

Being what is popularly termed a computer boffin, I'm much more happily situated. Some people have a tendency to assume that it must be very difficult to make a computer do clever things – in fact, they couldn't be more wrong. They rarely believe me, but it's the truth all the same.

The nuts and bolts of a program are simple to put together; however complicated the inner workings are, it's just a question of linking up a series of what are really quite trivial simple steps, like building a battleship out of bits of Meccano. If that was all there was to it, however, any chump could be a programmer.

What separates so-called geniuses like me from the also-rans is the way the program is pre-planned – and I don't mean flow-charts in seven different colours of ink. I've never drawn a flow-chart in my life, and I don't intend to start doing so now. The kind of pre-planning I'm talking about is a combination of diplomacy and mind-reading, and is carried out when I meet my client for the first time, and try to establish exactly what it is he or she wants.

Keep it simple

The first thing they always say is that they want the program in question to be a very simple one. I nod sagely at this. You see, I work on the principle that all the inhabitants of the western world can be divided into two distinct categories – those who can work the controls of a video-recorder, and those who cannot. It's not a question of intelligence, or even of practical dexterity; people whose lives are spent struggling to keep a business going have, of necessity, a powerful sense of priorities, and learning the ins and outs of complicated gadgets tends to come pretty low on the list of essentials.

The most fervent requests for a simple program come from those who have already tried a commercial software package. Five minutes with the manual are usually enough to make them give in – the first piece of reassurance I give them is to promise that no manual will be provided with my programs. I don't mind telling you that the real reason for this is that writing a *good* manual is much more difficult than writing the program.

The importance of the "front end" of the program can't be stressed enough. The menus and displays are not, contrary to blasé belief, mere frills, but the absolute heart of the matter. The time I spend with the client is nearly all occupied in sketching out what will appear on the screen. There must be a clear progression from menu to menu. It should always be as easy as possible to get from place to place, in a sequence which is common-sensical and intuitive (rather than merely logical).

Obviously, I have my own preferred style of laying things out, and part of the diplomacy involved in the consultation period is making the clients feel that they are the ones who are controlling the specifications. Conjurors do the same sort of thing when they let you "choose" a card – any card you like so long as it's the one you're supposed to take ...

Q.E.D.

It's very helpful to be able to demonstrate an existing program, as a sample of what's possible. I always encourage the clients to operate the sample program themselves, with a minimum amount of interference from me. As soon as they "take the wheel", I can tell whether they are terrified of the computer (the most unlikely people suffer from this), what their keyboard skills are like, how fast their brains work, and so on. All these things will influence the number and extent of the helpful prompts which will appear on the screen.

Maybe I'm a masochist, but I find that one-finger typists with galloping techno-dread are the most satisfying people of all to deal with – if I can help them to make real use of their computers, it gives me enormous satisfaction. I know that I'm winning when the first word or two of computer-jargon starts to crop up in their conversation!

Luckily for me, the basic requirements of cattle-breeders, undertakers, ironmongers, and picture-dealers are all much the same. They need to know what's coming in and what's going out, and to keep tabs on the creative arithmetic of their bank managers. I mentioned VAT a couple of months ago – the preparation of VAT returns causes more wear and tear on peoples' dentures than anything else. All I usually have to do is show that the program can take this demeaning chore in its stride, and I can do no wrong thereafter.

Consult the oracle

I hope you don't think I'm being too cynical about my customers. If you make your living by selling your specialist expertise, you have to cultivate a "bedside manner". People expect it of you, and the more confidence you have in yourself, the more confidence your client will have in you.

I can't stress too often that writing clever code on the computer is only a small, though necessary, part of the job I do. I love computers for themselves – I wrote programs for fun long before I started writing them for money – but for sensible folk, and I suspect that a lot of 8000 Plus readers fall into that category, computers are just tools for making life easier. If I'm going to persuade people to put their trust in an unfamiliar machine running a set of my programs, it's only to be expected that I have to sell myself first. If I didn't enjoy doing it, I'd find some other line of work ... ■

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After running your programs you return automatically to SuperDOS. You need never see the A> prompt again! SuperDOS also includes a 'notepad' for reminders, to-do lists and the easy writing of batch (SUBMIT) files. SuperDOS adds four new 'built-in' commands, including COPY, IFNOT and a pause command for inclusion in your batch files. For 8256/8512 users there is improved control of the printer from the DeskTop. SuperDOS is fast, is packed with features, and has been designed to feel like Locoscript so will appeal to reluctant CP/M users and power users alike. SuperDOS includes some or all the features of DIR, PIP, ERASE, RENAME, TYPE, SHOW, SET, RPED, DISCKIT, SUBMIT and DATE. SuperDOS requires a minimum 512K RAM, and will work with the new memory expansion boards. It is programmed in machine code using only documented CP/M techniques. Unfortunately it is NOT designed for use with a hard disk.

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KEEP YOUR SHIRT ON

Whoever thought the PCW could be a source of designer inspiration? Steffi Lester did – and look what happened ...

Sometimes just a little can say it all. Like legends, logos and graphics on T-shirts. Have you ever wanted to make a statement and then found that your ideas weren't catered for by T-shirt and motif designers? With your PCW, dot matrix printer, a little graphics software and a household iron, you can now prepare your own original T-shirt design.

The magical ingredient required is called a heat transfer ribbon. I originally bought mine (see margin note) to design and produce a personalised T-shirt and sweat shirt for a basketball team. The main purpose of this article is to show you exactly how to use the ribbon with the other equipment mentioned above to produce high quality designs on T-shirts. I will then discuss additional things you need to know about colour, ribbons and graphics. It's a simple process, but one that has many money-spinning possibilities.

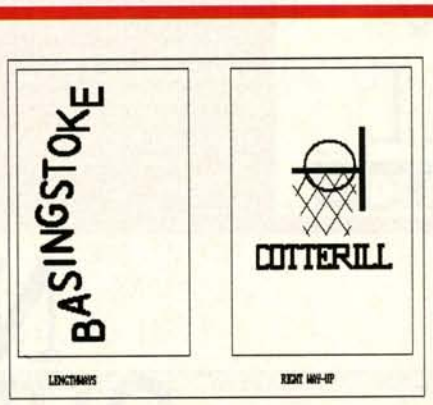
The team logo that you can see here on the sweat shirts had already been designed on paper; I had to find a way of transferring this onto a PCW with some appropriate software. I used Stop Press, which meant that I was limited only by my artistic capabilities with the mouse. Most desktop publishing and graphics packages will be adequate for the job; the walk-through that starts over on the right shows you exactly what they need to be able to do.

Creative sweat-shirts; is the PCW starting a whole new craze?

Not surprisingly, the logo is larger than the Stop Press page so I had to transfer and print the design in two sections. First, make sure that the design you have on paper is actual size. Now find out the largest area on which your software will print, always bearing in mind the size of your printer. An easy way to do this is to print out a page on which you have placed a cross at each corner. The Stop Press page measures 18 centimetres by 25.

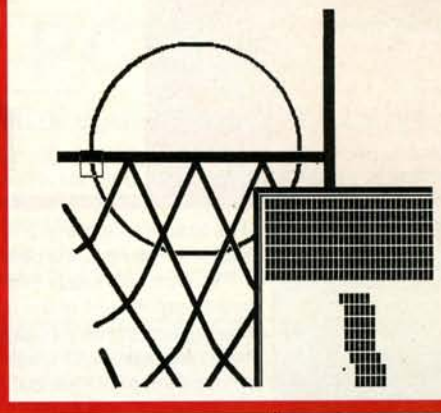
Divide the printable area of the page into pixels using a piece of graph paper. The pixel is the smallest unit into which the screen can be divided. Note that the pixel isn't a square unit though. The Stop Press page is 855 pixels by 543; you will find a scale drawing on page 152 of the manual. If you don't know the dimensions of the area in pixels, the graph paper will still be a useful guide.

The design is then cut out and placed on the graph paper. This allows you to a) calculate how to divide up the computer page and b) keep your design to scale. I divided my design in two, because BASINGSTOKE wouldn't fit across the computer page. Now follow the walk-through.



1 The logo I chose for the basketball team was larger than the Stop Press page (18cm by 25), so I had to divide the design into two sections. This would enable the two parts to be transferred onto the computer and printed separately. You can piece them together again when you transfer it onto the T-shirt. You can divide your design in two ways: either down the centre so that each half is printed the right way up, or by taking the section which is too large and transferring it onto the computer lengthways.
I chose the second option and placed the two parts on the graph paper accordingly.

2 To transfer the design onto the computer, activate Stop Press's co-ordinates option [L-6]. This will display the co-ordinates of the cursor in pixels on the screen and help with the sizing. Now the fun begins: drawing the motif. I drew the basket and backboard first using the Paint and Line option. You can get the scale of the motif accurate by referring to your graph paper and the co-ordinates on the screen. If you don't have the screen co-ordinates, use the graph paper to guide you. The ball was the easiest part and using the Circle option, I positioned it over the net. The Zoom option, also shown here, allowed me to touch up the detail.



Mirror, mirror

Once the design is completed, you have to reverse the image. When the message goes from the paper transfer to a T-shirt, the image is reversed, so you need the mirroring capability in order to compensate for this. If your design does not include script, you may find it looks the same in reverse and will not need reversing.

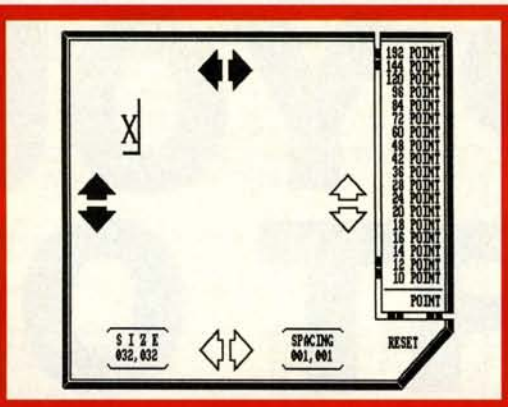
You can produce a mirror-image of your design using [D-

Master Scan to the rescue

Master Scan will save your time by transferring the design on paper to the PCW for you. It will allow you to produce complicated designs which are too detailed for your graphics software or your artistic abilities.

If you do not have mirroring capabilities in your software, draw the mirror image of the large text on paper and transfer it onto the PCW using Master Scan.

3 The hardest part of the text is deciding which font to use. I chose Classic as it was closest to my design. You can design your own fonts, but I decided that the available text was close enough to what was needed.
Having chosen the font, you can refer back to the graph drawing to see what size the letters need to be. Then, using the text size option [F-7], change the size accordingly. This is also made easier by the fact that the size of the text is described in pixels.



4 The next step is Text mode [E-1]. The formatting style was set to 'centre' text, so that the name COTTERILL would sit neatly under the motif in the middle of the screen. After typing COTTERILL, I made sure I was happy with the font, size and spacing before finally pressing [ENTER].
The first part of my design was complete, so I saved it onto disc.

5 The BASINGSTOKE bit, being wider, had to be transferred to the screen lengthways. I chose a font from the Stop Press disc and adjusted the size.
Type all the letters onto the page so that they can be rotated and repositioned correctly. It will be easier if you can place them all on one side of the screen so that the other half can be used for repositioning. With the letters in place, select the Rotating option [C-8]. I also made sure that the [D-6] Move option was on so that the original image disappears. Using the cross-hairs, define a box around the B. Reposition it by referring to your graph paper and moving the letter.

The heat is on

You can obtain the ribbons for the PCW dot matrix printer and many other printers from MGA Microsystems, Peartree, Appledore, Ashford, Kent, England TN26 2AR (023 383 571/294). They also supply the heat transfer pens.

What you need

Heat tranfer ribbon
Graphics software
– capable of mirroring text
– sharp printout
– good clip-art and/or design features
Dot matrix printer
Household iron
and lastly – imagination!

2] on Stop Press. Keep a copy of both images on disc to save time when you use the design again.

You are now ready to print out your design. The higher density capabilities of the software the better. High density means more ink on the paper and better transfers to the T-shirt. Stop Press was perfectly adequate for my needs, although the printing capabilities of Micro Design are reported to be better and may be similarly better in its transfer production.

Exchange the heat transfer ribbon with your ordinary ribbon, making sure it lies between the guideplates. Now print the design onto plain computer paper. Continuous stationery can reduce the smudging which sometimes occurs.

Transfer operation

The printed image is the reverse of the original design and is ready to be transferred onto the T-shirt. For best results, the T-shirt should be 50% cotton and 50% polyester. Polyester content can go up to 65% if you are careful during ironing.

The iron needs to be set for cotton and left to warm up. The steam control needs to be turned off. It's necessary to insert a sheet of cardboard of several sheets of thick paper inside the T-shirt. This prevents any leakage of ink onto the back of the shirt.

The shirt may then be laid onto the ironing board; make sure that there aren't any creases present. Iron the shirt to ensure that the surface is smooth and to heat up the fabric so that the ink will be absorbed more easily.

Position the transfer, ink side down, onto the shirt. Press the iron onto the transfer and hold it for 30 seconds. Do not move the iron otherwise the transfer may smudge. If your transfer is bigger than the print of the iron, you must lift the iron off after 30 seconds and place it down on the part of the transfer not yet heated.

Alternatively, you could place the transfer over the shirt and place two sheets of double thick paper over the top. This will prevent the shirt from scorching. Place the iron on the paper and move the iron slowly from side to side for 30 seconds, making sure not to touch the shirt at any time. The transfer shouldn't be more than twice the size of the iron print. Take care not to let the paper move. This option is best for fabrics with a large polyester content.

If your transfer is too big, you can either cut the tranfer into two or more pieces or print it out in smaller sections. It's a good idea to practise on an old T-shirt with the same cotton and polyester content first.

Graphic detail

You may acquire colour designs in a number of ways. Firstly, you may buy a heat transfer ribbon in the colour you require (if available.) If you want to use many colours, this may be too expensive.

Alternatively, you may draw the outline of your design on your PCW and print it using the black transfer ribbon. You may now use heat transfer colour pens or crayons to colour in your design on the paper. Then you transfer the design as before. The crayons are available from craft stores and are cheaper than the pens although they produce a pastel colour. The pens appear quite dull on the paper but are brighter when transferred. These colours are transparent and will therefore show up better on white shirts.

Paints may be bought from craft shops which you apply directly to the shirt. The outline may be printed and transferred as before and then you jpaint the colours directly onto the shirt. There are many colours available in these paints. Note that you need to be moderately artistic to use them and mistakes are not easily rectified.

I have used Stop Press in my example but there are many other desktop publishing and graphics packages on the market which may be used. The package you use must be able to produce mirror images of text. High-density printing capabilities are desirable as pointed out above. If your design does not include text, you can experiment with any graphics package because you may not need any mirroring capabilities. The package which will suit you depends on your design requirements.

If you're not very artistic, you will be able to use the clip-art available in your program. Master Scan will also be an advantage if you have a drawing which may be difficult to reproduce on your PCW using your available software.

The heat transfer ribbons have allowed me to produce personalised shirts for a whole basketball team. Each member now has a sweat shirt and T-shirt with the team logo and their own name and number. All this at a low cost and with a minimal time spent on the process.

A colleague asked me to reproduce a shirt for her small business. Called Grapevines, this firm delivers gift-wrapped bottles of wine, champagne and spirits. The sweat shirt is now worn by all staff and provides an eyecatching advertisement as well as a smart uniform.

After seeing the basketball club shirts, a football team asked me to produce a T-shirt with their club logo emblazoned on the front. I was able to quote a price less than the silk screen printers who normally produce their sportswear, and still make a profit. They too are now joining the IT-Shirt revolution. It is clear to me that there are endless business possibilities for this simple but effective design process, but that's where the entrepreneur takes over – but that's another article altogether. ■

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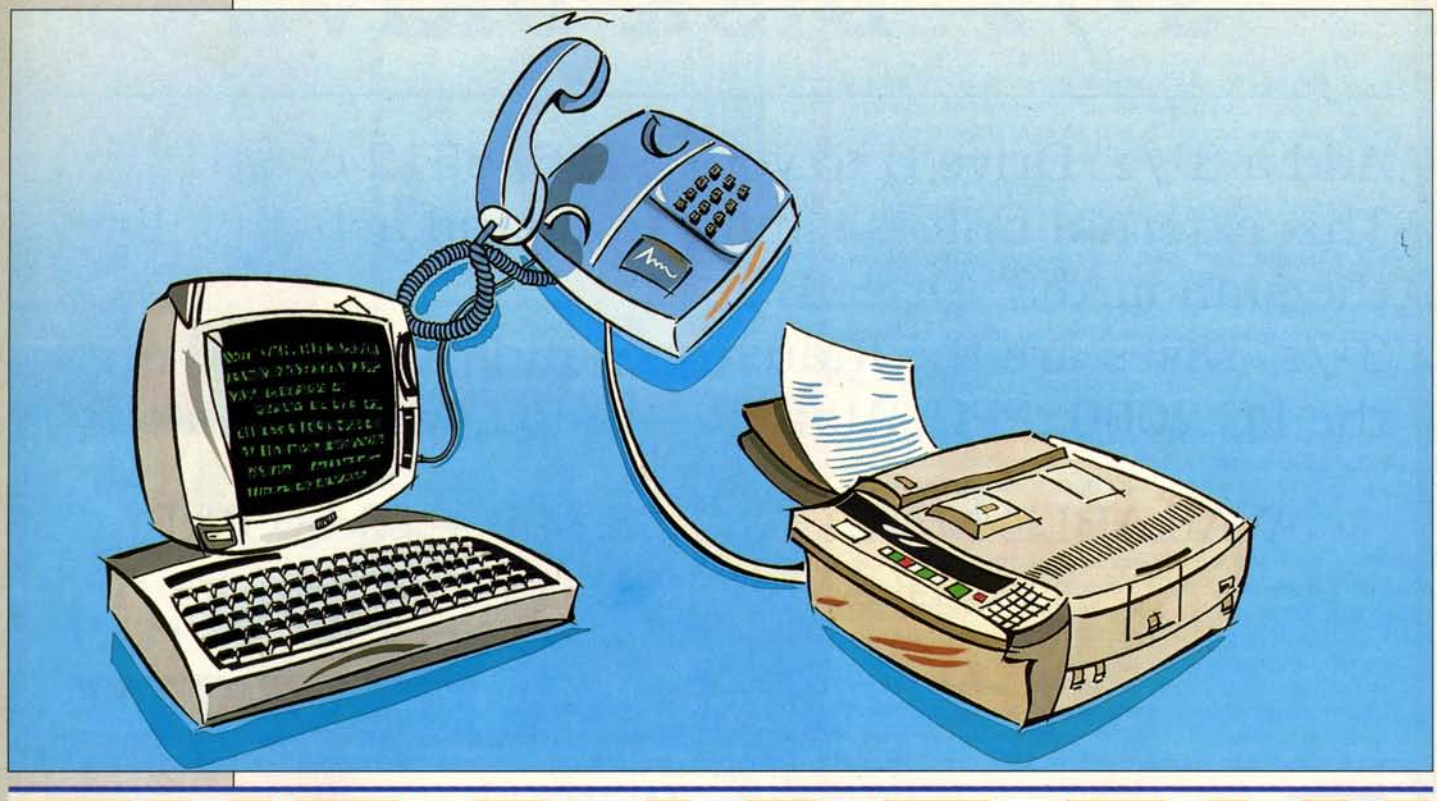


THE BARE FAX

Save yourself £500 and unearth more of your PCW's hidden talents; Andrew Bibby looks at the PCW's faxing capabilities

Amstrad are entering the fax market. Alan Sugar made the announcement at a meeting of his distributors in the middle of September. By the time you read this, the first of the new machines should be readily available in the shops.

It's an open secret that Amstrad are hoping to repeat their PCW success all over again (and it's no secret at all that the company badly need a boost in their fortunes at the moment). They intend the fax machine, like the PCW, to sell in bulk at a low price, though 'low' in this case means £599 plus VAT – a competitive price at present for faxes, but more money than you paid for your PCW, and for it you get considerably less technology.

So will Amstrad succeed in opening up a new market for fax machines – to small businesses, and perhaps for home use, too? Maybe. Certainly faxing (facsimile transmission) has taken off in Britain over the last two years. It's now taken for granted in many business transactions that you'll have access to a machine: "I'll fax the documents through to you," says the voice on the telephone. "What's your number?".

Even Radio 1 DJ Steve Wright did his bit to help, when he accepted record dedications by fax during last year's postal strike.

But if you baulk at the thought of buying a new piece of technology, of paying for the cost of using it (and of finding space in which to put it), another option is open to you. For a lot less outlay than the £599 + VAT which Mr Sugar is requesting, you can make your PCW itself into a kind of fax machine.

I should explain: however hard you try, the PCW isn't able at the moment to accept incoming faxes. Neither will you be able to use it to fax out drawings or diagrams or hard copy of any kind.

What you can do, however, is to send text direct from your PCW to a fax machine. If for example you need to transmit the text which you've just finished LocoScripting in your converted hermit's cell on Lundy to your editor's desktop fax machine in London, this can be done automatically – without your need to row to the mainland to find the nearest commercial fax agency to help you out.

E-mail with a difference

What you will need before you can start, however, is to get access to on-line electronic communications (comms). This means acquiring a modem (to convert the electronic signals generated by the PCW into a form which can be sent down the telephone lines), an RS232 interface (so that you can plug the modem in to the back of the PCW), and adequate software, so that the computer knows what you want it to do.

This basic equipment gives the PCW the potential to access a whole range of on-line services, including bulletin boards, Prestel, electronic mail and business databases. (Previous articles in 8000 Plus have focused on some of these areas). The total cost of getting started is likely to be under £200, and there are various ways of reducing the initial outlay (see box).

While it is theoretically possible with a modem and comms software to send text backwards and forwards between two individual computers, in practice it's easier to

Stark, raving bonkers

Fax is the technology that should never have been needed, and perhaps wouldn't have been if E-mail had been more widespread and more simple to use.

It makes little sense to convert a computer-generated text file into hard copy, only to feed the paper into a fax machine and let it be reconverted back into a stream of electronic bytes of information. It makes even less sense to do what freelance journalists are still regularly being asked to do by the national press: prepare their story on disc, print out and fax the copy, and then have it retyped all over again at the other end. Are we all mad?

use an electronic mail (E-mail) service like BT's Telecom Gold. Once you've enrolled, paid your subscription fee and been equipped with a personal ID and password, you will be able to send messages (via your ordinary phone line) to other E-mail subscribers, which will be stored on the E-mail host computer until the recipients choose to retrieve it from their electronic 'mailbox' .

The fax facility is merely an extension of the basic E-mail principle. Instead of sending a message to another subscriber's mailbox, you ask your host computer to forward the message to the fax machine you have identified. Since a fax machine is basically made up of a modem and printer (together with a scanner for use when transmitting), it can happily receive your message, and print it out.

Communiqué

Let's take an example. Suppose I am desperate to get in touch with 8000 Plus's editor, and that I decide to send a fax message. I don't have my own fax machine, but I could nip down to the local High Street instant print shop, and send it from there.

Instead I go on-line and log on to Telecom Gold. After remembering my ID number and password, I'm faced with the Telecom Gold system prompt, **>**.

I type the word **FAX**, and press return. The Gold computer responds by asking **Send or Queue**. That's easy: I type in **Send**.

I am now asked to enter the fax machine's telephone number. This is the only tricky bit. 8000 Plus's fax number is 0225-446019, but it's necessary to identify this as a UK telephone number – after all, fax is now international, and I might be wanting to send a message to Burundi or Brunel, not Britain.

So the UK telephone number has to be converted, by adding the standard UK code 44 and dropping the first zero of the number (this is exactly what you do if you dial home when on holiday abroad). At the **To:** prompt, therefore, I enter the following:

To: FAX 44225446019

It's now time to type the actual message. It makes sense to begin by identifying the eventual recipient of the fax. So my text reads:

Attn: Sharon Bradley, editor 8000 Plus

Remember that article I'm writing for you about PCWs and faxing services? Unfortunately I now find that in order to research this piece adequately, I will need to make a visit to New York, Sacramento and Los Angeles next week. Please authorise payment of first-class air ticket by return.

Best wishes, Andrew.

Having completed the text, I press return, and then enter **.s** on a new line. This is the signal that my message is finished and I want it sent on its way to Bath.

Telecom Gold include an initial cover sheet with the fax and also print **"Delivered by Telecom Gold Fax Delivery Service. *End of Message*"** at the end.

The cost of communication

Composing all except a short message while actually on-line is time-consuming and expensive. However, it's perfectly easy to send a pre-typed file prepared with LocoScript. You do however need to convert the LocoScript document into a page image ASCII file first. Don't try to send a file containing pound signs (ASCII is an American standard, and it doesn't know how to cope with £s), fractions, or other less common symbols.

Once the fax has been dispatched, it's possible to keep tabs on its progress, by using the Queue: prompt. In any case, a message will be deposited in your mailbox letting you know when Telecom Gold has delivered, or failed to deliver, the fax.

Failure can occur for various reasons: if the receiving fax machine is not plugged in, has broken down, or is out of paper, for example. An increasingly common problem, too, is that fax numbers are frequently engaged – the machine is busy coping with somebody else's message. It makes sense, therefore, to pre-compose your text and save it on disc, in case you need to try again later to get the connection.

What does this all cost? E-mail charges are notoriously complex, don't include VAT, and don't include either the normal cost of using your telephone line (though you may be able to tap in to E-mail via a local number). However, Telecom Gold's rates for individual users are currently £40 registration, £5 per month subscription, 6.5p per minute connection charge (2p off-peak), a character charge applied to each block of 512 characters (first block free, thereafter 4p per block, 1p off-peak), and a filing fee for retaining messages of 20p per 2048 characters per month.

Fax transmission is charged on top, currently at 45p per 1024 characters to a United Kingdom destination, with the rate rising to 85p for Europe, £1.20 for North America and £1.50 elsewhere. Telecom Gold claim this works out at about 77p for an A4 page.

There are however back-door ways into Telecom Gold which can save you money. For example, Micronet (see box) offer their members access to Telecom Gold for just £3 + VAT per quarter, saving the substantial registration and monthly fees.

Alternatively, you can opt for one of Telecom Gold's rivals. There are a number of competing E-mail services, almost all of whom offer a similar fax service to Gold (each also tends to have equally complex charging arrangements). Micronet's main rival Microlink has recently made the headlines by switching from BT to Istel INET. INET's charges can work out cheaper than Gold's: the monthly fee is more expensive, at £7, but the initial registration is only £15, and connection charges are cheaper too. (More details from 0527 28515, extension 2697).

Whichever host service you choose, you'll be able to reach all fax machines, although you may be more limited when it comes to ordinary E-mail. ■

Package deal

Thinking of going on-line? Micronet continue to offer an excellent package deal for newcomers. For £123.95 including VAT, they'll supply you with everything your PCW needs (modem, Dialup software, and a lead) except the RS232 inteface, and with a year's free subscription to Micronet/Prestel thrown in. (The sub alone is normally £91.95). Business users pay £169.95, and get Telecom Gold as well. Phone 0442 237237 for further information.

Pray TELEX!

Telex has been the telecommunications workhorse of the business world for a very long time. Fax may be glamorous and convenient, but good old telex machines have been working away for years across the world in places that have yet to catch sight of a fax machine.

Not surprisingly, E-mail services like Telecom Gold offer a Telex service, comparable to the Fax facility. On Gold, for example, type INFO TELEX at the system prompt > if you want to know how the service works, or simply TELEX INPUT if you're all ready to go with a message. Telexes can be sent to almost every country in the world, and – if you're feeling really adventurous – to ships at sea, using the Inmarsat service.

Unlike faxes, you'll also be able to receive telexes. Telecom Gold, and other E-mail services, can now arrange for you to have your own personal telex number, to put on your notepaper – though of course any telex messages sent to you will merely be dumped in your ordinary E-mail mailbox. The onus is on you to go on-line regularly to make sure there are no URGENT! telexes sitting waiting to be read (it is also possible to arrange to be notified by a BT radiopager when one arrives).

One slight snag with Telecom Gold is that, if you want to use their Telex service at all, you have to pay at least £1 a month extra, to store a special Telex directory file. You'll also incur costs when you send telexes. Incoming messages are free.

Prestel provides a Telex facility, too. Once again, this can be used both for sending and receiving messages. For incoming telexes, however, you can't arrange to have your own telex number: instead, messages must be routed to Prestel's telex number 934999 TXLINK G, with your own Prestel mailbox number added as the first line of the message. In practice, this is cumbersome and likely to confuse your contacts. (If you have access to Prestel, more information is available by keying *TELEX HELP#)

ODD JOB DONE

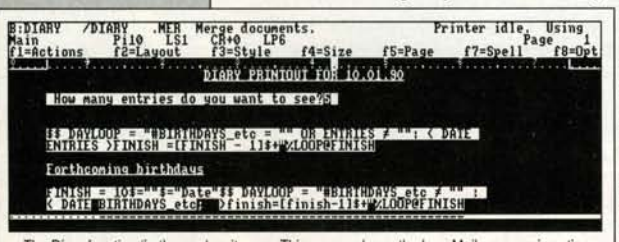
When it comes to planning the finer details of your life, sometimes it's nice to be able to do it all without ever leaving LocoScript. Tim Smith gets organised as he looks at Tudor Systems' new package

FACTOTUM

£14.95 (inc) ● Tudor Systems ● 0622 861775

LocoScript prides itself on being a friendly environment. The PCW owner who is equipped with LocoMail, LocoFile and LocoSpell might never feel the need to leave. This is the theory behind Tudor Systems' Factotum.

From the outset you should know that you will need a PCW8512 or upgraded 8256 with B> drive, as well as LocoScript 2, LocoFile and LocoMail in order to be able to run this system. What you get is a B> drive disc on which are various LocoFile and LocoMail documents which combine to give you the following capabilities: a diary which includes appointments as well as birthday and anniversary reminders, an address list which provides a telephone list, a Christmas card (or any other special occasion) list and the ability to pull names on and off any circulars which you might want to send. There's a tax planner which includes separate 'His' and 'Her' sections for monthly budgeting, income-tax planning and capital goods lists.



The Diary function 'in the raw' as it were. This screen shows the LocoMail program in action

The more polished image for Diary with a few details entered. Use this as a normal LocoMail routine

Tax ... the HISTAX example file goes through its paces with a will

FACTOTUM

PLUSES

- ▲ Works from LocoScript
- ▲ Excellent Letters facility
- ▲ Easy to use

MINUSES

- ▼ Only works with LocoScript
- ▼ Assumes knowledge of LocoScript
- ▼ Poor presentation
- ▼ Only works with an expanded 8256

EASE OF USE	3/5	PERFORMANCE	2/5
DOCUMENTATION	3/5	RANGE OF FEATURES	3/5

8000 PLUS VALUE VERDICT 11/20

Completely Loco!

Firstly, you must make a back up copy of your Factotum disc. Then boot up LocoScript in the usual way. You will then see that on the B> disc all eight of the User Groups have been titled and, save for groups 2 and 3, contain files. The diary is in group 0 with the Expenses in Group 7. Each of the groups contains a READ.ME file except for HISTAX which is so similar to HERTAX which precedes it as to not need one.

The manual which we received consisted of 14 pages of tightly-typed continuous paper. This gave the package rather a makeshift Public Domain feel, but the information was all undoubtedly there. Factotum does rely on the assumption that you, the user, have a fair working knowledge of both LocoFile and LocoMail. Consequently both of the manuals for these products should be kept close at hand while you're learning to find your way around.

The Example files which accompany each of the groups need to be merged using LocoMail – a fairly automatic process. You are then shown a few possible applications. It dawns on you that what you have in front of you are a number of well-thought-out LocoMail routines. To give credit where it's due, these routines are quite tight and as long as you refrain from fiddling about with the .MER files, they should be foolproof.

Friday on your mind

The Diary section on its own is a powerful addition to the obsessional LocoScripter's collection. To create your own entries, you make use of the LocoFile template which is the backbone of the system. For users of LocoFile this is no real problem and can build up into a handy tool.

The Letters group contains an address list which can be indexed under either Business or Personal. The amount of information which can be stored and accessed here makes the title – Letters – rather understated. Once you have entered the information, the program will automatically address, providing a personalised greeting. You can decide to put the relevant contacts down for circulars or greetings cards.

Out of the programs available on this disc, Letters is quite definitely the best-implemented and most useful. For example, the phone list is compiled from the information provided while setting up this initial file. It's all simple, well thought-through and effective.

Vat'll do nicely

The program's tax and financial applications have all been included elsewhere in other software, but if you are looking for a financial planning unit that will work, with a minimum of fuss, from within LocoScript, then these should suffice.

The two tax systems are fairly basic. Each has space for allowances, current rates of tax, threshold and, of course, income – both earned and unearned. As long as you remember to keep updating these files on a regular basis, the system should prove its worth.

The final section is for the business person to keep an up-to-date expenses list which may be sent to the taxman or accountant; the legal standing of these documents should be roughly the same as any handwritten accounts.

Conclusion

The outstanding feature of Factotum is the Letters group of programs which will provide anyone, at work and/or at home, with a mighty useful base. The diary comes next. The financial packages are already well catered for in the PCW market although you would have to leave the cosy LocoScript environment to use them. Generally, Factotum is ideal – if a little pricey and sloppily-presented – for the 8000 PCW user who wishes to retain the home comforts of LocoScript while branching out into the more complex applications of LocoMail and LocoFile. ■

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FRONT OF HOUSE

Most PCW owners only ever see half their machines' potential. Tim Smith receives a warm welcome from a possible help-mate in the quest for full power ...

PCW SUPERDOS

£29.95 ● Encyclasoft ● 0270 811890

"More than a word processor for less than a typewriter"; that was one of the early Amstrad advertising lines for the PCW. But what did they mean by the "more than a word processor" tag?

The majority of PCW owners still don't know. This remains true for several reasons; the main one is that the majority of people bought their machines as word processors, not home computers. The mere idea of 'learning to compute' is enough to put many people off and lose them at least 50% more powerful, versatile usage from the PCW.

For some reason learning about the Personal Computer side of the **P**(*ersonal*) **C**(*omputer*) **W**(*ordprocessor*) appears more off-putting than learning to use LocoScript. It is certainly true that the literature which accompanies CP/M (the PCW's operating system) is far less amenable to rapid learning than Jean Gilmour's LocoScript manuals. It is also true that CP/M offers little, if anything, in the way of on-screen guidance. There seems to be a yawning gap separating the friendly LocoScript environment from CP/M's sparse screen and intimidating A> prompt.

The opening screen. Looks quite familiar does it not? Well, the idea is that familiarity should breed a sense of ease rather than contempt. For people who have not previously used CP/M, this is aimed at making life easier. For those users already familiar with CP/M the idea is to improve file handling if not more.

Mass file handling becomes simple with the ability to Tag files of the same type. You even have the ability to manipulate the files which have not been tagged in an "IF...NOT" tagged system. The dagger signs to the left of the filename in the centre of the screen are there to indicate which files have been tagged.

Vive la difference

Leafing through a French PCW magazine (*L'Echo du PCW)* we came upon what we thougutht was a front-end called, romantically MX-880 V2...ah these French know the language of love...It seeks to emulate the Apple Macintosh. You might know it as Desktop from Database. We hope to look at it in the near future.

Your start-up for ten

It is exactly the gap which PCW SuperDOS aims to fill. Happily it gets off on the right foot with an installation process which is a relatively painless enterprise. You obviously need to make a back up copy of the master disc. After this, five CP/M files need to be copied across in order to make your disc self-booting. The final step is to run a small program called INSTALL.COM which comes with the main program files.

INSTALL allows you to set up SuperDOS for your particular machine. It does this simply by asking you whether you have an 8512 (or upgraded 8256) or 9512. It then needs to know how many disc drives you are using. Once this information has been provided, a configuration file (SD.CFG) is written to disc and you are ready to get going.

It must be said that this simple installation process does credit to a system which purports to make computing easier.

Our friend's electric

The basic idea behind SuperDOS (the DOS stands for Disc Operating System) is that the familiarity and ease of use of LocoScript's disc management screen could be used in CP/M. Indeed, the first thing that strikes you about SuperDOS is its similarity in looks to LocoScript.

Someone who has not previously encountered CP/M will find this new environment no culture shock at all. The major difference between the two systems, aside from the fact that one is a word processor and the other a 'friendly-front-end', is that SuperDOS was written using Hisoft's Pascal programming language instead of machine code.

This means that it runs slightly less seamlessly, and certainly less rapidly than LocoScript. If you run SuperDOS straight from power-up with nothing else in memory, the speed differential is dramatically improved. In real terms, speed, or lack of it, is a minor problem as, for the most part, SuperDOS is used as a leaping off point to execute other programs. Equally, its most powerful features become apparent during disc housekeeping, a non turbo-charged environment and one which should be handled with care at the best of times.

One of the less than satisfactory points about LocoScript is the fact that you are only able to copy one file at a time. Those people who already use CP/M are well aware that the command PIP.COM will allow you to copy as many files as you like in one batch. The problem for non-CP/M users is the rather complex looking command line syntax (the phrase itself is terrifying enough) which you need to learn. None of the CP/M commands are what you would call intuitive; for example PIP itself, (which can achieve many useful functions) stands for Peripheral Interchange Program, and means for most of its life, Copy.

A game of tag

SuperDOS gets round this by providing an immensely useful system called **tagging**. If you have ever used the public domain program NSWEEP you will understand just what a labour-saver tagging can be. For those users who have stayed totally faithful to LocoScript the basic principle is as follows: say you have a number of files with the suffix .LET (for letter) and you need to copy them over to a new disc. With LocoScript this would entail duplicating each file individually, a time consuming activity. While with CP/M the line:

PIP B:=A:*.LET

would be sufficient. However, already it begins to look complex. The process would become even more involved if you wanted to back up .DOC (for Document) files as well.

SuperDOS allows you to move through your files using

the cursor keys as you would in LocoScript. Press [T] and a small dagger symbol appears next to your chosen file to show that it has been marked or tagged. Do this with all the files which you require to be copied, erased or moved. The next step is simple: again using the cursor keys, you choose which group or drive you wish the files to be moved or copied to. Press [ENTER] and the job is done. If you wish to erase the files, you will be prompted for confirmation. All this in half the time that LocoScript could achieve it and with less typing than CP/M.

An even handier way around mass file handling is by use of the G or [f4] menu. This allows you to use wildcards. Instead of manually highlighting each LET and DOC file, you simply tell SuperDOS to do it for you. But say you wanted to hold on to all the DOC and LET files? Well, the G or [f4] function provides the capability to move, copy or erase all files which have not been tagged.

Guide's honour

The only way to find about these functions is by use of the manual. These books are perennial disaster areas for software and user. In the case of SuperDOS however, a fair job has been made. The major gripe is, as usual, the lack of any comprehensive index. With your first few uses of manual and software, this omission is not that wearing. It's only once you become more aquainted with the product that it becomes a pain in the drives.

The manual deals with its subject matter in a two tiered manner. The overall level of knowledge assumed of users is that they have glanced through the Amstrad manual a few times. There are also small sections called 'Going deeper' for the more technically minded. The writing is concise and uncluttered by extraneous fripperies or deliberate science blinding.

Managing well

As we have noted, the main use for SuperDOS is as a disc/file manager. Although it can also be used as a launch pad for other programs under CP/M, it will quite definitely not make using BASIC, for example, any easier. Within its brief as a replacement for the A> prompt however, it is effective. The LocoScript feel is retained throughout, with pull-down menus, function keys and similar screen partitioning all being used. SuperDOS does love to chew up the memory and a full 512K RAM on your machine is required. This can cause problems when trying to run other programs. Moonstone Computing's Toolkit flatly refused to run from SuperDOS.

Both CP/M and LocoScript deal with discs by way of User Groups. In LocoScript you will have noticed the eight groups available for Live files. There are also seven other groups which can be accessed from CP/M and which LocoScript uses to hide Limbo files. These are also available to SuperDOS and any other system which runs under CP/M. However, SuperDOS uses the same system as LocoScript and negates these seven other groups. This can be a real pain for the truly serious user.

If, for example, you decide to store a number of program files in any group number higher than seven you won't be able to see it in the disc management screen. This does seem to be a waste of disc space and an under-utilisation of CP/M. However, for the casual user, it is not the end of the world.

Drop a note

Possibly the best use of CP/M within SuperDOS is the ability to create, edit and print out Notepads. To achieve such a feat from the traditional A> prompt would not bear thinking about. Under SuperDOS however, the process is simple and immensely useful. You are provided with the ability to produce small (2-5k) notes as and when you need

Making a note from the Disc Management screen is as easy as a..b.C..for create. Compared to CP/M's ED facility, well there is no comparison. SuperDOS knocks spots of ED. An idea would be to keep a disc to hand for the occasional scribble.

The [f1] key allows you to leap into CP/M and run a program. Once you have finished running the program you are automatically brought back to SuperDOS. This can cause a few problems. See "Set for trouble" for details..

them. To do this you press C for create and are moved into a new screen. Type your text and quit. The feel is remarkably LocoScriptian and you might find that the notes themselves soon become invaluable.

One of the main uses for the notepad is to create what SuperDOS calls Batch files. A Batch file, or SUB (as in PROFILE.SUB) file as PCW users will know them, is an executable file which can contain a list of commands or prompts which are run 'automatically' by the PCW. Writing these using the notepad facility is easy enough to convert a few thousand people to making use of SUBMIT.COM.

Conclusion

There are many more points relating to SuperDOS which have not been examined here due to lack of space. For example, the ability to back-up an entire directory (e.g active group) is a boon. Although the system is aimed at all users it is more likely that the serious CP/M addict will stick with command line and A> prompt. For the the casual or new user however, SuperDOS is an excellent tool.

With the advent of RAM upgrades, SuperDOS really could come into its own. A combination of RAMpack, Flipper, LocoScript, and SuperDOS could provide an ideal setup for the PCW. ■

Set for trouble

One, not so minor, problem with SuperDOS occurs with CP/M utilities such as SET.COM and DIR.COM. Both of these allow you to use options, in fact SET.COM demands options. Running them from SuperDOS does not allow you to provide any such options and you are dragged straight back into its Disc Management screen. The only way around this is to use the Execute Command function.

PCW SUPERDOS

PLUSE
- ▲ Makes CP/M almost human
- ▲ Excellent Tagging facility
- ▲ Notepad function most useful

MINUSES:
- ▼ Needs full 512k memory
- ▼ A little slow
- ▼ Need to leave SuperDOS for a few important functions

DOCUMENTATION:	4/5	EASE OF USE:	4/5
RANGE OF FEATURES:	3/5	PERFORMANCE:	4/5

8000 PLUS VALUE VERDICT: 15/20

TOON TOWN

It began as a surprise to everyone and has snowballed from there. What is it? It's desktop publishing on the PCW. Tim Smith looks at one of the many pieces of support software produced to help the avid PCW artist

Cartoon Fun

£12.50 (inc) ● HD Design ● 04867 81394

Cartoon Fun is a disc full of clip art for such desktop publishing packages as Micro Design 2, Stop Press, Newsdesk International and The Desktop Publisher. What you actually get are 85 separate pieces of art ranging from remarkably glum-looking humans to dynamically dizzy dinosaurs.

Support clip art, (or Cut Files as they are sometimes known), have been available for the PCW since the first spray-can icon hit the first electronic piece of paper. There is nothing outrageously special about Cartoon Fun. The quality of the drawings is high and the humour portrayed keeps well clear of anything which might be smutty or in poor taste. Not having loaded each of the 85 graphics it is hard to say across the board whether there is anything sexist or racist here.

I'll get you wabbit!

It is all too easy for a company to leap on the back of successes such as Micro Design. Cartoon Fun is definitely aimed at that market, but the quality of the work here belies any such fears of bandwagon jumping.

One thing to bear in mind is that it is possible to alter any clip art once it has been loaded into your desktop publishing system. You can see that each one of the 85 drawings can act merely as a template for further work by you.

We used Micro Design and Stop Press for our tests on the cartoons and found only one problem. The disc physically fell apart, luckily after we'd backed it up. Being still in the spirit of the new decade we put this down to the postal system and the fact that it had taken a fair buffeting in our recent office move.

See you Thumper

The acid test for any such software is whether or not you get pictures on screen. The clip art used within this package was originally marketed for the PC and has been converted for the PCW. Running on Micro Design and Stop Press there was no trouble at all. Obviously the quality of output is dependent on machine and software, however, the method by which the images were initially created will also account for the resolution or lack of it.

In the case of Cartoon Fun the quality remained high. At a pinch maybe 85 pieces of clip art might be over-stretching the artist. In this case the artist is Howard Davies, the man behind HD Design. It must be said that a few, very few, of the offerings bear a striking resemblance to doodles on the office blotter but these are the exceptions. They can always be worked on by you.

That's all folks!

This is just one selection of the possible support software available for the PCW. Cartoon Fun has been put together with skill and a deal of good natured humour. Possibly the price could have been dropped a little and the subject range broadened (what about some funny vegetables then?). But aside from these moans it is a useful package to have in your collection of desktop publishing peripherals. ■

VALUE VERDICT			
VARIETY	3 5	DOCUMENTATION	n a
QUALITY OF DRAWING	3 5	RESOLUTION	4 5
8000 PLUS VALUE VERDICT	10 15		

"Run! Run!
screamed Sydney as the massive
with hate in its eyes and bile in
that today just was not going to

THUMB THROUGH 50,000 PAGES OF THE FINANCIAL TIMES IN 3.9 SECONDS

PRESS FOR ACTION

Perfecting the art of sounding knowledgeable fast; we log on to Profile, the largest on-line business information service in Britain

Everyone knows that the PCW is a versatile little beast. But PCW users who have added on a comms package (modem, interface and software) extend the possible uses of the machine one stage further. Once on-line, as we saw in December's 8000 Plus, your PCW can get you access to a wide range of databases waiting to be called up at the other end of the phone line.

There are now over 400 on-line databases available for public perusal in Britain – everything from information on the profitability and creditworthiness of individual companies to specialist stuff on sludge treatment and pig butchery, for example. (There's even a database called WITZ containing about 1000 jokes – perhaps that's where Jim Davidson gets his material).

This is what they call the 'information revolution', and it means that should you have the inclination – and the money – your PCW may be able to take over quite a lot of the functions of your local reference library.

It's not just the databases stored in computers in Britain which are accessible, either; once on-line, it's as easy to call up a computer in, say, the States or Australia as it is to reach one in the next town (and it may not be any more expensive).

Blind data

The problem is that, like many things about the computer industry, it's very hard for a non-specialist to know where to start. Somewhere in the electronic ether may be the information you need to finish your research paper, to find out what one of your business competitors is up to, to sound knowledgeable in that article you've been commissioned to write – or to help you win at Trivial Pursuit. But where should you look?

This article focuses on just one database, Profile, which could help in at least some of these situations. It provides about the largest on-line business information service in Britain, though non-business users may find it useful too and – a real plus, this – it's one of the easiest databases to access. Even if you're a CP/M-phobe you should manage all right.

Profile provides complete texts of articles from almost all the quality press in Britain, as well as from several magazines and from international sources of news. Since 1987 Profile has been part of the Financial Times group so, as you'd expect, *The Financial Times* itself is one of the papers included; so are *The Independent*, *The Guardian*, *The Times*, *The Sunday Times* and *The Daily* and *Sunday Telegraph*, as well as a token tabloid, *Today*.

Real live aliens

Magazines like *New Scientist*, *The Economist*, *Campaign* and *Media Week* are available as well. Or you could choose to consult the Associated Press agency reports, the BBC's monitoring service of world broadcasts, the government's

The good host

As well as its newspaper and magazine databases, Profile has also recently begun to act as a 'host' service for a number of other on-line information suppliers.

For example, it is possible to check information about the company records and accounts of limited companies through databases produced by Jordans, ICC, McCarthy and Infocheck. Profile also carries some of the best known market research databases, including Mintel, MSI and Euromonitor. (Several of these databases can be reached in other ways – for example, some are also available direct from Telecom Gold.)

press release service Hermes, the Washington Post and – real glasnost, this – the official TASS newswire service. (The only time I've ever accessed TASS via Profile was to check out the story last year that aliens from space had landed in a small Soviet town – TASS protested vehemently that it really was true.)

The above list is already a fairly impressive selection of news sources – and in fact Profile offers access as well to another 40 or so information sources, including several specialist business and market research publications. But that doesn't necessarily guarantee Profile's usefulness, of course. A pile of old newspapers isn't a great deal of help if you want to find a particular article – and a database like Profile will only be more useful if it has an adequate method of allowing you to pinpoint immediately what you need.

Fortunately, with a little practice, Profile does permit you to do this. Its database program allows it to identify almost every word in each article in each publication carried. What this means is that you can key in the word or words you are interested in and every article which includes them will be electronically dragged from the database and got ready for your inspection.

Faraway plaices

Let's take an example. Suppose you're living at the moment in London and working in a fish and chip shop, but harbouring illusions of escaping to a remote Scottish moor to enjoy the quiet life. As you watch the cod and haddock spluttering in the fryer one evening, you have a brainwave – perhaps fish farming in a highland loch could be the career you've been looking for.

Your knowledge of fish farming at the moment may be zero, but a few minutes spent with Profile could put that right: boot up the PCW with your comms software, and arrange for the modem to dial Profile's number. Once on-line, having entered your user ID number and your password, you will be asked to choose the publications you want to consult.

For example, the command **SELECT FT** will (logically enough) allow you access to the Financial Times. Or you might **SELECT IND,TIM,GDN** for The Independent, Times/Sunday Times and Guardian. Alternatively, you might decide to cast the net wide: **SELECT UKNEWS** allows you to consult all the main British newspapers on the database.

Having chosen your selection of 'files', as Profile calls them, you must narrow down the search to the subject which concerns you. Type **GET FISH FARMING**, and all the articles which include these words will be identified.

In fact, you'll probably prefer to enter the command **GET FISH FARM*** in order to identify articles where the key words may be in a slightly different form: 'fish farm','fish farms', 'fish farmers' etc. (CP/M users will be familiar with the use of an asterisk in this way as a wildcard).

Highland field

You will now be told how many articles the database has identified with your chosen word(s). Let's say you're given the message:

49 ITEMS RETRIEVED

That's likely to be too many to consult. So you decide to narrow the field down further. Use the command 'PICK' to select another word or words – for example **PICK SCOTLAND**.

Immediately Profile identifies which of those 49 articles also includes the word 'Scotland', again displaying the information on screen:

11 ITEMS RETRIEVED

That's more like it. You can now ask to see the headlines of each article (with the command **HEADLINE ALL**, or just **H ALL**). This will also tell you when each article was published, which publication it was in and how many words it contains.

You can also arrange to see the full text of each paragraph where your key words appear (the command is **CONTEXT ALL**, or just **CTX ALL**). Or perhaps you'll choose to see the complete text (**TEXT ALL**). If you're only interested in some of the articles retrieved, that's no problem: **TEXT 1-3**, for example will display the full texts of just the first three articles.

Key to success

Of course, the success of your searches on Profile depends entirely on how well you choose your key words – ask the database to **GET COMPUTERS**, for example, and you will find it difficult to track down what you want. But used wisely Profile does offer a facility which can be helpful in many different situations.

You could see what travel journalists have said about your holiday destination before you make the booking. You could settle once and for all that argument with Grandad about who scored the winning goals in the FA cup Third Round replay last year. You could check what the papers have to say about your favourite pop stars (**GET KYLIE MINOGUE**, perhaps), or even what they have to say about you.

More seriously, you can keep up to date with a research specialism or with developments in your line of business. You can find out more about a business competitor or customer – or get the low-down on the background of somebody you're about to meet. You can even prearrange for Profile to pick out for you any articles in the future containing selected keywords (the articles will be dumped in your private electronic mail box). ■

In the pink

Want to be one up on your fellow yuppies on the 7.06 from Sevenoaks? Profile now allows you to read the next day's FT the night before. Could be invaluable if you're wondering whether to sell those Doome and Decaye plc shares. Could be invaluable if you're stuck in Los Angeles with hours to wait before the familiar pink paper hits the newstands. (Or could just be another way of relieving yuppies of their money.)

Counting the cost

But, of course, there is one snag about using Profile – and that's the cost involved. Like most commercial databases, Profile is priced at rates which can initially leave you gasping. For example, there is currently a one-off £150 registration fee (for this you get a user guide, and a training course in London). There's also a connection charge each time you go on-line of £1 per minute, and a line display charge, which is typically 2p per line of text (but may be higher for certain files). All these costs have to have VAT added as well.

Then of course you must also meet the cost of accessing the database computer in the first place – either by direct phone call, or by using British Telecom's PSS (Packet Switching Service).

The trick is to go on-line for the shortest possible time, saving any information you need on file for later use off-line. Don't read the articles on-screen, and don't print them out: do this later, off-line, when time is no longer money. (The easiest way to print out files saved from Profile is likely to be using the LST: command when using CP/M PIP.) It's possible to grab quite a lot of information in just three or four minutes on-line – and the £5 or £10 this costs may be money well spent.

Precision impossible

I'm being deliberately vague about the exact costs involved – and you'll probably have to accept that it is impossible to know precisely what your on-line searches are costing until the bills come in. But this is a feature of the way that almost all commercial on-line databases set their pricing policy – they manage to make BR's fares structure seem a model of good sense.

To make matters more confusing, you don't need to subscribe to Profile to use the service, since you can also reach the database by roundabout routes. For example, Telecom Gold users can reach Profile direct (the cost currently is £1.80 per minute + VAT, plus normal Gold charges). Alternatively, other e-mail services such as Istel's Infosearch (now used by Microlink members), Mercurylink and One-to-One also provide access. Inevitably, each have their own pricing policy – it's almost impossible to discover which offer the best value.

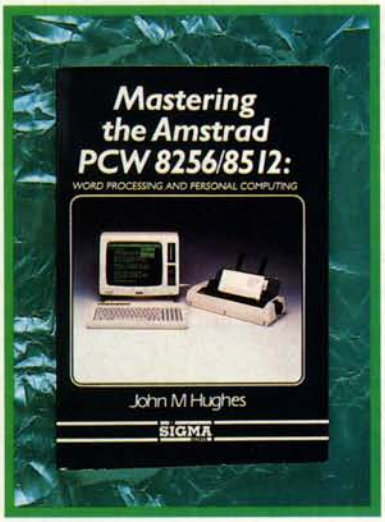
Profile themselves operate a hotline for enquiries: they can be reached on 0932-787231.

BOOK LOOK

MASTERING THE PCW 8256/8512

by John Hughes

£8.95 ● Sigma Press ● 0625 531035



This introduction to LocoScript, CP/M, databases, spreadsheets – everything you can buy for the PCW, in fact – which first appeared in 1986, is now on its fifth reprint. Though the original text is of good quality – John Hughes is an experienced author with a gift for explaining concepts in a clear and nonsense-free way – it's looking a bit long in the tooth now.

For example, the book restricts itself to LocoScript 1 (and hence to 8256s and 8512s – no mention of the 9512 at all!). Version 2, which came out in 1987, has established itself as the standard version. It is very different from version 1, making much of the material in this book useless.

There is even a BASIC listing at the back of the book supplying a 'missing feature' of LocoScript: the ability to make ASCII files – a feature which was added to LocoScript four years ago! It all reminds you of the chap who finished digging his tunnel under the Berlin Wall the day the Brandenburg Gate was opened up. Again, LocoMail, LocoSpell, and such recent arrivals as LocoFile, get no mention.

On CP/M, Hughes makes a brave attempt to explain what an operating system is, though I wonder how many people will find it enlightening – it's rather like trying to explain the intricacies of clutch, accelerator and gear control to someone who has never driven a car.

There are useful sections on other programs. SuperCalc 2 as an introduction to spreadsheets in general has a good going over, though there are too few illustrations to make it really easy to follow. Cambase and Flexifile provide the examples for the database section, though these two have long since been superseded by Mini Office, Masterfile, AtLast, Cambase 2 and others. Sagesoft Accounts and NewWord are also mentioned, though again the book's age shows as there is nothing on Protext at all. (Though there are those who say that LocoScript and NewWord have nothing on Protext either).

Hughes is skilled at knowing where the reader might find jargon confusing and anticipating any problems: he explains that 'saving' means the same as 'recording', for example – a little point, but one that can confuse the beginner. He also likes to give the derivations of words, such as 'booting' a disc coming from 'lifting up by the bootstraps' – a nice touch to lighten the read.

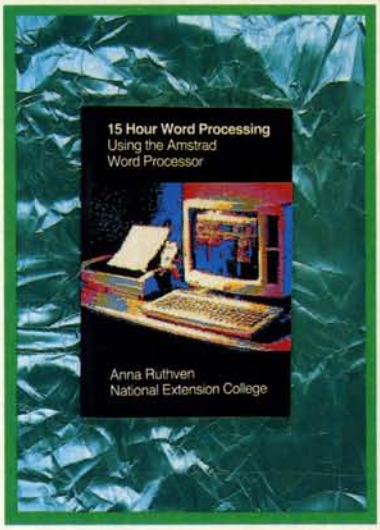
This was a good book in its time, but churning out a fifth reprint is pushing things too far. A very heavily revised version of this would be a welcome break from the ranks of identical LocoScript potboilers, but, like a mid-80s guidebook to Eastern Europe, this edition is beginning to look very dated.

MASTERING THE PCW 8256/8512
ISBN NUMBER: 1 85058 052 9
8000 PLUS VALUE VERDICT 3/5

15 HOUR WORD PROCESSING
USING THE AMSTRAD WORD PROCESSOR

by Anna Ruthven

£5.95 ● National Extension College ● 0223 316644



Another book restricted to the 8000 machines and to LocoScript 1: no LocoFile, LocoSpell or LocoMail.

As the title suggests, it's a quick training course in word processing – a guide telling you exactly what to do and how to do it rather than taking time to explain the eternal verities of word processing. It's aimed very much at the secretary or person wishing to use their PCW for 'traditional' office uses such as memos, curricula vitae, business letters, and so on; indeed, it is set in a secretarial course style. It even has a small section on how to prepare documents like those infernal Estate Agents' descriptions of houses that turn 'dilapidated' into 'great potential' and 'drowned out by lorries all day' into 'convenient access for main roads and motorways', though from a layout rather than a stylistic viewpoint.

It succeeds very well. The keypresses to achieve the desired effect are listed one-by-one systematically, and even if you're not sure what's going on you can at least learn how to set up a template or set up tabs and margins in such-and-such positions by following the instructions.

Virtually every page has a screen shot on it showing what things should look like at each stage – always the mark of someone who's actually spent some time and effort thinking about how to explain what's going on most effectively for the learner. It would have been nice, though, to have more on margins and layouts, which are always the most difficult things to visualise.The only quibble is with the layout, which can be a little cluttered in the lists of things to press and do.The example pieces of text you are asked to type out are interesting in themselves, being lists of commonly mis-spelt words, punctuation practice for business letters and so on.

This is not a comprehensive guide to LocoScript's features; page numbers, phrases and blocks, for example, are dealt with rather briefly, and obscura such as ASCII files and insertion of one file inside another are not mentioned at all.There's a section at the end describing how to print in columns, using the neat trick of printing alternate pages of one long thin column on the same piece of paper with the left offset changed. A glossary of codes at the end is useful, as is the brief list of typesetting marks used on manuscripts.

The pace of the book is gentle, the examples are methodically and systematically worked through, and to the person who finds the LocoScript 1 manual too woolly, this is just the sort of thing that might help.

Rob Ainsley ■

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ISBN NUMBER: 0 86082 760 7
8000 PLUS VALUE VERDICT 4/5

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THE FORTH DIMENSION

Bill Peebles introduces FORTH, the computer language with a difference

Way back in the mists of time, primitive man uttered his first word. It was a word that had a definable meaning. Probably a curse when he hit his thumb with a flint hammer while carrying out a DIY extension on his suburban, semi-detached cave. His son, a bright lad, repeated the word and received a clip round the ear because his father had defined a meaning for the word. This first word formed a vocabulary and during the following milleniums further words were added. Dictionaries were hewed out of stone slabs and early yuppies developed huge biceps carting their filofaxes about in barrows. Today we continue adding new words; my previous reference to a filofax is an example. A dictionary definition of a word is 'a unit of language either spoken or written.' A dictionary gives the meaning of many words.

The FORTH Word

What has all this got to do with FORTH? you may ask. Well, FORTH is a computer language consisting of a basic dictionary of about 250 words. Like the real world, however, we can extend it by adding new words which have been defined and used as required. Let's stay on the subject of language; if you have planned a holiday to Germany next year and want to learn a smattering of German before you go, you can utilise FORTH to help you. Consider the following :

```
: der ." the " ;
: wolf ." wolf " ;
: und ." and " ;
: mensch ." man " ;
```

Four FORTH – albeit German – words have been created with their English translations.

If **CR der wold und der mensch** <ENTER> was typed in, **the wolf and the man** would appear on your screen. Simple, innit? A complete dictionary of German words can thus be created; alternatively, if you

```
: the ." der " ;
```

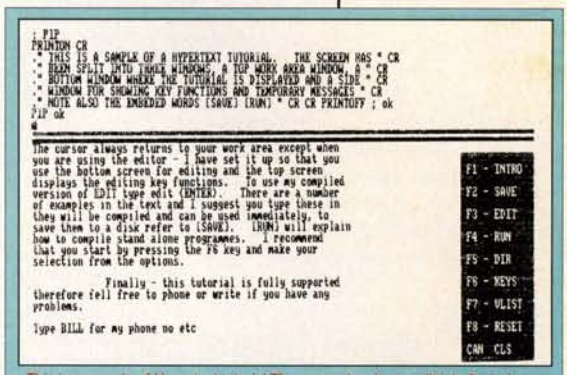
that is, created the words in English with the German translation, then a passage typed in English would be printed in German. This is a simple illustration, but it is possible, using FORTH, to develop a complete implementation in which you could type a letter in English and the output from the printer would be in German. Of course you're not restricted to using just German; any number of language dictionaries can be compiled using the same technique.

Remember also that your PCW has a language command which can be used to output various character variations using different key strokes. It is an excellent facility, but you would normally have to nip into CP/M to activate it. Help is at hand, however; using FORTH, you can create a word so that the LANGUAGE.COM can be used within the FORTH environment. The word definition is **: LAN 27 EMIT 50 EMIT EMIT ;** To get the German setting type **2 LAN** <ENTER>.

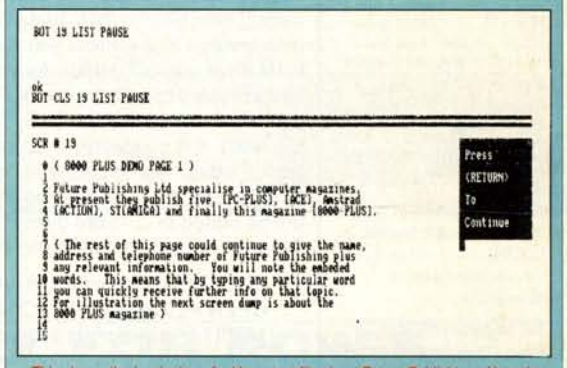
Hypertext

Computer boffins are beavering away to create new applications of Hypertext. Hyper what? I hear you cry. Imagine reading a hefty text book; you will frequently find numerous footnotes containing references to other books and articles. It's rather frustrating being surrounded by a dozen books which refer to each other. So Hypertext comes to our aid. It provides the means, when reading text on the screen, to get further information from another source – simply by pressing a key or a mouse button. In fact what we are doing is browsing and following a sequence of events of our choosing.

As mentioned above, the boffins are busy creating bigger and bigger systems with the oft heard cry "We aint got enough memory to input the meaning of life, the universe and why my aunt Sally always goes to Blackpool for her holidays". The humble PCW and FORTH can be harnessed to develop a reasonably sophisticated HYPERTEXT hybrid. FORTH uses areas know as blocks for input/output of disc data. A block holds 128 bytes. A screen consists of 8 blocks therefore each screen is 1024 bytes (1 kilobyte). As FORTH uses a RAM based virtual memory, we can create data files up to the limit of our discs. If we have a second drive fitted, we can create a massive 700 + K data file (the mind boggles if you have a hard disc!)



This is a sample of Hypertext tutorial.The screen has been split into 3 windows, a top work area window, a bottom window where the tutorial is displayed and a side window for showing key functions and temporary messages



This shows the beginning of a Hypertext file about Future Publishing. Note the embedded references to the magazines that the company publishes. By typing in [8000 PLUS], a screenful of information about the magazine is displayed

Let's look at a simple example of a HYPERTEXT hybrid. There are two steps involved: the input of data and the creation of FORTH words. The first step is selecting your subject and researching it. You must then decide the length of your master piece. This will depend on whether your data file is to be saved on the A or B drive.

If it is on the A drive, you will be restricted to about 170 screens – but that is still about 21000 plus words.

May the force be with you

It was rumoured that CH Moore, the inventor of FORTH, could not spell. The truth is that although it was his fourth attempt to develop a language to control radio telescopes, (that's why he called it FOURTH) his coding was initially implemented using a version of FORTRAN. This only permitted names of up to five characters in length, so he omitted the u and called it FORTH.

During the twenty years since its conception, FORTH has been used for many applications. It is an ideal language to use for controlling robotic machines in factories. Atari's arcade games, for example, have been developed using graphics FORTH. The animation sequences in Star Wars, funnily enough, were controlled by a FORTH program.

One of its greatest strengths is that it is portable across a wide range of computers and systems. This means that you could learn the language using a PCW yet still use it on a main frame computer with very little modification.

2 2 + = 4

FORTH was developed as a halfway house between assembler and high level languages and uses two unique concepts.

First, it uses an alternative method of writing algebraic expressions; that is, it uses *postfix* notation rather than *infix*. Post of course means 'after'. Therefore when we enter numbers for calculation in FORTH, we would put the numbers in as:

6 5 + 10 2 – *

We are adding 5 to 6 (11) taking 2 from 10 (8) and then multiplying 11 by 8 to get a result of 88 . To get the same result using infix notation we would have to use brackets ie (6 + 5) * (10 – 2). Once the concept of postfix notation is grasped, complex maths problems can be solved more easily.

Second. In order to take advantage of using postfix notation, a suitable data structure called a stack is used. This is an area of RAM set aside for temporary storage and works on the principle of 'last in, first out'.

If we take the example above, we would enter our figures exactly as shown: 6 5 + 10 2 – *. The 6 would be entered followed by the 5. The + generator is next on the list. 6 and 5 are added giving 11which then becomes top of stack. 10 in then entered followed by 2. This leaves 2 top of stack followed by 10, then 11. The next operator is -. So, 2 is taken from 10 giving 8 which, being the most recent arrival, goes to top of stack. 11 is second. The final operator * multiplies 8 and 11, putting 88 at the top.

The Written word

There have been no books on the FORTH language written specifically for the PCW. However the following list is worth reading.

Starting FORTH by Leo Brodie (Very expensive, but worth it)

Thinking FORTH also by Leo Brodie (A sequel to **Starting FORTH** but wait until you have some experience before tackling it).

The Students FORTH by Glyn Emery (It only has 100 pages but is useful).

Functional Forth For The BBC Computer (Although written for the BBC micro it contains some interesting ideas).

FORTH is a cult magazine in the United States and there are often features in **The Byte Magazine**.

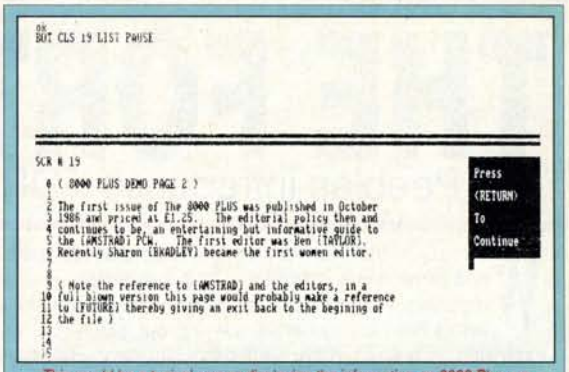
A word of warning, though: if you decided to embark on a major project and used the B drive with a 700 plus screen output, then bear in mind that you will not be able to copy it onto another disc (unless you have a hard disc or a 512K RAM drive upgrade fitted). As you create your text file, it will be necessary to select some key words. These are the words that, when activated, display a more detailed account of the key word. It is suggested that your key words are typed in capital letters and enclosed in square brackets – [AMSTRAD] for example. We then develop a file of our key words which will be added to our core directory as compiled words. The sequence would be something like this:

DR1 (This indicates the B drive for input/output)
OPEN PLUS8000.DEF (Open filename of our choice)
1 EDIT (Activates the editor starting at screen 1)
(Enter our word definitions ie)
: **AMSTRAD CLS 28 LIST ; : FUTURE CLS 32 LIST ;**
CLOSE (Closes your file)

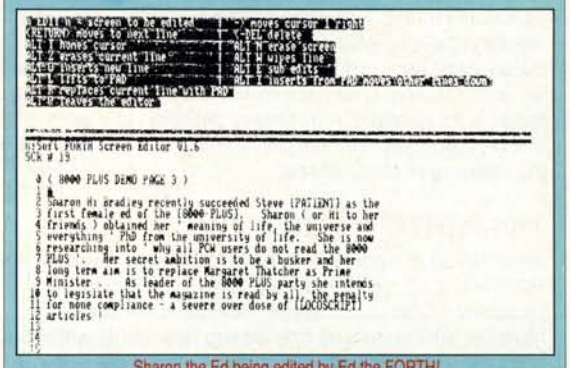
When we wanted to use this particular program we would :

DR1
OPEN PLUS8000.DEF (Note I use DEF to indicate a file with defined words)
1 LOAD (This loads the words in and compiles them)
CLOSE (When you are given the OK prompt)

It is now necessary to OPEN our text file for referencing
OPEN PLUS8000.FIL
CLOSE



This would be a typical screen displaying the information on 8000 Plus we mentioned earlier. Note again the bracketted references to [AMSTRAD] [TAYLOR] and [BRADLEY].



Sharon the Ed being edited by Ed the FORTH!
(Thank you for revealing my secret desires to the entire nation, Bill. I think I'm going to be sick. Ed)

When we enter any key word now, like AMSTRAD <ENTER>, the relevant screen will be displayed. Although I have simplified the procedure slightly, there is not much more to it than that.

Can you now see the possibilities of using this system for tutorials? Choose a subject: history, a computer language (think how easy it would be using FLIPPER. With a C tutorial and a C implementation loaded, you could flip between the two), accounting, a town guide – the list is endless. Because FORTH is a compiler, you can translate your money-making ideas into stand-alone programs and market them.

I have just returned to the keyboard after a DIY session in my semi-detached suburban house, I hit my thumb with a hammer and uttered a curse, my son, a bright lad, repeated the word and received a clip, because for thousands of years the meaning of that word has been defined. ■

The Byte Word

There are not many versions of FORTH available for the PCW but HiSoft make up for this deficiency with HIFORTH. In addition to the basic implementation, it comes with a stack of goodies in the way of add-on libraries:

GSX Library: ideal for illustrations, graphs and games.

Utility Library: this contains predefined words such as 2ARRAY that make it easy to construct two dimensional arrays.

Assemble Library: this facility allows you to create assembler code that can be integrated with FORTH code.CPM library: with this library you have direct access to the BDOS within CP/M.

Printer Library: printed output is a piece of cake. This library has a multitude of predefined words to permit enlarged, italic, condensed print.

Overall this is an excellent and powerful implementation spoiled by a rather thin manual. HIFORTH costs £19.95 inclusive and can be purchased direct from:

HISoft, The Old School, Greenfield, BEDFORD, MK45 5DE
Tel: 0525 718181

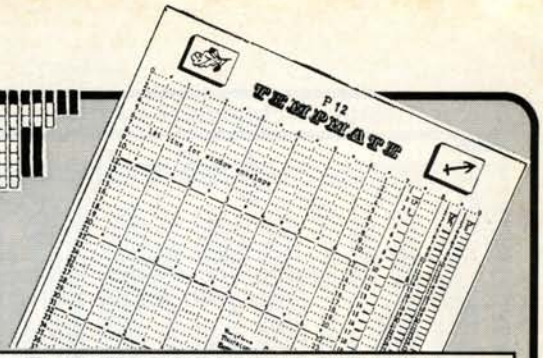
There are a number of versions available in the PD libraries, but it would be advisable to contact the library concerned for an up to date copy of the catalogue. You should also note that some programs in the PD have to be modified for use on a PCW. PD software is available for a few pounds' copying fee and a disc supplied by you.

The Public Domain Software Library, Winscombe House, Beacon Road, Crowborough, Sussex, TN6 1UL
Tel: 0892 663298.

I have produced an on-line FORTH tutorial, used within the FORTH environment and is full of hints, tips and examples. This can be obtained from me for £6.00 plus a formatted disc (please let me know if it is required for the A or B drive).

Bill Peebles, 5 Gore Hill, THORNLEY, Co Durham, DN6 3DT.
Tel: 0429 820029

THURSTON TECHNIQUES



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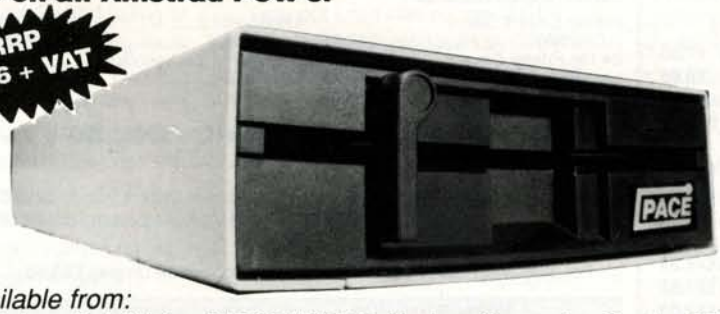

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QUOTATIONS FROM: The Guardian; 8000 Plus; Amstrad PCW; Micro Computer Mart; New Computer Express.

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POST DECADE MISCELLANY

LANGFORD

A page in the company of author and PCW pundit David Langford

Having recently returned from a longish trip to the northwest USA as guest of a science fiction convention, I planned to write an in-depth analysis of the PCW market over there. Here's a complete transcript of my research notes....

DL: "How popular is the Amstrad PCW in these parts?" Many American Literary Persons: "What the hell's a PCW?"

Half of them own IBMs and half use the incredibly expensive (at least in Britain) Macintosh. Although the statistics show that a tiny band of American PCW users does exist, they seem as difficult to trace as that statistically common family with 2.4 children.

Over there, it appears, the PCW came on the scene too late; makers of cheap IBM clones had carved up the penurious end of the market in a bloodbath of price-cutting which we didn't see here until much more recently. End of in-depth analysis.

8 or 9?

The cover says February, you're probably reading this in January, and I'm writing at the height of the Xmas horror: we SF fans who've spent our lives reading about time distortions always feel right at home in publishing.

So, as I write, fond relatives are still ordering software for the family PCW addict and failing to specify whether the computer is an 8256, 8512 or 9512. (Let's draw a veil over those who fail to mention that it's actually, ahem, a CPC 464.) Indeed this happens all year round, and often it's the computer owners themselves who don't choose to reveal intimate facts like model numbers to strange software dealers.

Of course it's frustrating to receive a disc which won't start up your machine or can't even be read on it. No disc which starts up the 8256/8512 will do so for the 9512 or vice-versa, and inevitably the 9512's 720K discs remain inscrutable to 8256 owners. My own outfit, Ansible, reckons that the best guess is to send a 180K disc for the 8256/8512, with a note explaining that 9512 owners should either (a) copy the programs to a 9512 CP/M start-up disc as so simply and beautifully described in the manual, or (b) send it back for recopying. To save their supplier from idle hours of staring out of the window, most people choose (b).

So... do remember to mention your machine model when ordering programs or dropping tactful hints to relatives. I admit that sensitive, intelligent **8000 Plus** readers rarely need this exhortation. Ansible's main quarrel is with uncultured chaps who forget to state the machine number, sign the cheque, etc., and then make witty remarks like: "Don't waste my valuable time with questions — it's **your** job to get these things right."

Another problem I have to explain from time to time concerns the exact meaning of "free space" on a disc. The awkwardness doesn't arise if you only ever use LocoScript, or if you never use it at all, or if you keep separate working discs for LocoScript documents and other files. But if you put Loco files on the same disc as those produced by CP/M programs (perfectly legitimate, but see below), you'll sooner or later meet the Great Disc-Full Paradox.

"100k free", says the Disc Manager menu in LocoScript. Who could disbelieve it? "No room on disc," insists an otherwise apparently reliable CP/M program. "ERROR: DISK WRITE NO DATA BLOCK – A:DOCUMENT.$$$", reports CP/M's dear old user-friendly PIP, which is its way of saying, "No room on the disc, squire."

Old hands at the PCW game will already be wearing knowing smiles. This is all to do with the dark mysteries of LocoScript "groups".

Groups started as a CP/M idea for letting a number of different users, or groups of users, each have their own "private area" of a disc. When you type DIR in CP/M you normally get a directory of Group 0 (zero), and most people vaguely think that only LocoScript can see Groups 1 to 7.

Disc full or not?

In the old days, user number 1 would type USER 1 in CP/M, and the A> prompt would change to 1A>, and he or she would have access to all the Group 1 files. In fact this still works in CP/M on the PCW. Enter USER 7 and then DIR, and you get a listing of the Group 7 files.

CP/M doesn't stop there; the USER group numbers go up to 15. This is where complications appear. Loco uses Groups 8 to 15 solely for Limbo files. When a Group 0 file is erased or edited, the old version is simply relabelled as being in Group 8 and can (as we know) be hauled back.

The Limbo groups aren't counted in LocoScript's calculations of free disc space: files there are living on borrowed time, and Loco will erase them "properly" the moment it wants the space.

To CP/M, though, Groups 8 to 15 contain ordinary files with an equal right to live. A much-used Loco disc will have a crowded Limbo area and will look pretty full to CP/M.

These different views of the higher-numbered groups explain the cryptic warnings in manuals: stick in a CP/M disc containing a needed file which happens to be in Group 15, and LocoScript might liquidate it as an expendable resident of Limbo. But who these days uses the groups, except in LocoScript?

Finally, the obvious solution. When you want a CP/M program to write text to a Loco document disc (perhaps for later "Insert ASCII" inclusion into a Loco file), first select Loco's "Show Limbo" option and erase some suitably unwanted-looking Limbo files from the revealed list.

Another solution: you could always have saved the CP/M program output on a freshly formatted disc, but where's the technocratic fun in that? ■

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LISTINGS

Mastermind your own conversion with a BASIC bonanza

MASTERMIND

By Mr R A Phipps

Way back when in the Seventies, there was a game which caused quite a stir throughout the country. Mastermind. The one with the bald bearded chap on the front of the box and the coloured pegs which got lost under chairs and pets. This is what we bring to you as first offering in this month's Listings.

A relatively short listing for what it does, Mr Phipp's program contains all of the factors which made the original so addictive, frustrating and enjoyable.

Due to the PCW's graphic limitations, we have to do without the coloured pegs. Instead we make do with the letters A,B,C,D,E,F,G.

The idea of the game is simple. The computer chooses four of the seven letters in any order and you have eight attempts to guess the selection. The PCW can, of course, choose the same letter four times - so watch out. To give you a rough guide for your logical choice, there are two clues. You are told if you have made a match – right letter in right place – or a mismatch – right letter wrong place. From there, you extrapolate the big picture. You have eight attempts to do this, and remember, once a letter has been typed in at the keyboard, it cannot be changed.

The programming itself is a picture of concision and planning. The various boxes which appear on the screen are achieved by way of user functions (FNpos$ for example) which are defined early on in the program within lines 50-70.

The main game loop begins in line 140 and ends in line 370. Within this WHILE....WEND loop is a subsidiary loop beginning in line 210 and ending in line 300 which may be considered as the Guess loop.

Okay, so just how clever, logical and generally Vulcan are you? Can you guess the correct combination in less than eight attempts?

To pack all this into the space which Mr Phipps has used, without using machine code, is an impressive feat to say the least. The documentation which was provided also made life at Listings Plus that bit easier. So, all round well dones and have a good game.

```
10 a$=" MASTER MIND ": b$="is a trade mark": c$="of Invicta Plastics Ltd" 2124
20 RANDOMIZE PEEK(64504!): play=1                                        0EF4
30 bel$=CHR$(7): esc$=CHR$(27): cls$=esc$+"E"+esc$+"H"                   12DC
40 PRINT cls$; esc$+"0"                                                  08F6
50 DEF FNpos$(r,c)=esc$+"Y"+CHR$(31+r)+CHR$(31+c)                        135D
60 DEF FNmes$(r,c,w,s,a$)=FNpos$(r,c)+SPACE$(s)+a$+SPACE$(w-s-LEN(a$))   1EB1
70 DEF FNrow$(r,c,e,w,f,g)=FNpos$(r,c)+CHR$(e)+STRING$(w,CHR$(f))+CHR$(g) 1F82
80 PRINT FNpos$(2,2);STRING$(13,95) 'Title display                       16C8
90 PRINT FNpos$(3,2);esc$+"p"+a$+esc$+"q"                                10FF
100 PRINT FNpos$(29,61);a$;b$: PRINT FNpos$(30,64);c$ 'Trade mark        1CB3
110 GOSUB 380: GOSUB 380: GOSUB 380 '3 fixed boxes                       16DB
120 FOR i=0 TO 1: FOR r=7 TO 12: READ a$: s=-13*(r=8 OR r=11)            178D
130 PRINT FNmes$(r-15*(a$=""),60*i+2,14*(i+1),s,a$): NEXT r,i            1782
140 WHILE play: RESTORE 550: GOSUB 380: GOSUB 380: GOSUB 380 'Main table 21A7
150 n=1: win=0: s=0                                                      06AB
160 FOR i=1 TO 4                                                         06A3
170 code(i)=65+FIX(RND*7): PRINT FNmes$(3,3*i+24,1,0,"?")                16B9
180 NEXT i                                                               047C
```

The groundwork is laid with screen clear routines, randomization, and bell (or rather beeps) being set in motion.

```
190 PRINT FNmes$(3,44,7,0,"MARKING"):                                          0FEA
200 a$(1)="Type guess now":a$(2)="":GOSUB 430                                  120A
210   WHILE n<9 AND win=0: mat=0: mis=0                                        0FE6
220   FOR i=1 TO 4: k(i)=code(i): m$="ABCDEFG"                                 1231
230   PRINT FNpos$(3*n+4,3*i+24);                                              0D92
240   GOSUB 450: ges(i)=a                                                      09F1
250   IF ges(i)=k(i) THEN mat=mat+1: ges(i)=0: k(i)=-1                         1656
260   NEXT i: PRINT FNpos$(4+n*3,41); "Matches   :" USING "##";mat             1A42
270   FOR i=1 TO 4: FOR  j=1 TO 4                                              0BDA
280   IF ges(j)=k(i) THEN mis=mis+1: ges(j)=0: k(i)=-1                         169A
290   NEXT j,i: PRINT FNpos$(5+n*3,41); "Mismatches:" USING "##";mis           1CBE
300   win=(mat=4): n=n+1: WEND                                                 0C94
```

The scoring process; matches and mismatches are found and printed out. The main game loop is, for the most part, carried out here.

```
310 FOR i=1 TO 4: PRINT FNpos$(3,24+3*i);CHR$(code(i)): NEXT i: s=2            1AAC
320 WHILE win=-1: a$(1)="Win in": a$(2)=" attempts": GOSUB 430                 1966
330 PRINT FNpos$(15,12); n-1: win=1: WEND                                      1298
340 WHILE win=0: a$(1)="8 attempts": a$(2)="Give up now": GOSUB 430:           1E16
350 win=1: WEND: PRINT bel$: FOR i=1 TO 3000: NEXT i: PRINT bel$               1EE9
360 a$(1)="Play again?": a$(2)=" (y/n)": GOSUB 430: PRINT FNpos$(16,11);       1D28
370 m$="YN": GOSUB 450: play=(a=89): WEND: PRINT esc$+"1"; cls$: STOP          1C9F
380 'SUB BOX                                                                   0549
390 READ tlr,tlc,brr,brc,h,v,c1,c2,c3,c4: w=brc-tlc-1                          18F3
400 PRINT FNrow$(tlr,tlc,c1,w,h,c2)                                            1212
```

The subroutines for creating boxes are defined and carried out here.

```
410 FOR j=tlr+1 TO brr-1: PRINT FNrow$(j,tlc,v,w,32,v): NEXT j                 1CA0
420 PRINT FNrow$(brr,tlc,c3,w,h,c4);: RETURN                                   17FF
430 'SUB MESSAGE                                                               081B
440 FOR j=1 TO 2: PRINT FNmes$(j+14,2,14,s,a$(j)): NEXT j: RETURN              1D13
450 'SUB KEY                                                                   053A
460 a$="": WHILE a$="": WHILE a$="": a$=INKEY$: WEND                           128B
470 a$=UPPER$(a$): a=ASC(a$)                                                   097D
480 IF INSTR(m$,a$)=0 THEN PRINT bel$;: a$="" ELSE PRINT a$;                   19D6
490 WEND: RETURN                                                               0936
500 DATA 6, 1,18,16,154,149,150,156,147,153,8,1,13,16,154,149                  1142
510 DATA 151,157,151,157,6,60,12,90,154,149,150,156,147,153                    111F
520 DATA " INSTRUCTIONS","","Guess the four","letters from:-",""                1E24
530 DATA "A B C D E F G","MATCH    : Correct letter in","correct place"         1DC7
540 DATA "","MISMATCH : Correct letter in","incorrect place",""                1DE4
550 DATA 1,23,31,54,138,133,134,140,131,137,1,23,5,40,138,133                  115D
560 DATA 134,142,135,143,5,40,31,54,138,133,143,141,139,137                    1101
```

The final routines for keyboard scanning and sending the messages to screen can be found here.

How toType in Listings

First you need to get Mallard BASIC up and running. Insert a copy of your CP/M disc. At the A> prompt type **BASIC** and press [ENTER].

BASIC is loaded when the A> disappears and is replaced by **ok.** You're now ready to type in the listings. Do this as they appear on the page, line by line. Don't type the four figure hex numbers at the end of every line as these relate to the Checksum program published in the November 1988 issue.

Typing errors are quite common, so check each line carefully. If you find a mistake before pressing [RETURN] simply cursor back to it and make the required correction using the [DEL] keys. If you realize that you've made a mistake after pressing [RETURN] you will need to type **EDIT** and the number of the offending line. You can then edit any errors in the same way as above. Once you're sure that all is correct, press [RETURN]. The corrected line will be accpted into the program.

When you've typed in all the lines and made any corrections, type **LIST** to print the entire program on the screen. If you want a copy sent to the printer, you will need to type **LLIST**.

After making another line by line check you must save the program. Do this by typing **SAVE**" followed by a filename such as **DRAW**. You don't need to bother with the .BAS as BASIC assumes this. Make sure the filename is no longer than eight letters.

Finally type **RUN** and wait. The chances are that the dreaded Syntax error in line so-and-so or some other message will appear. The line number might not be the exact place in which the error occurred but it will narrow down the search. Edit any errors and try again. If all else fails, go to the manual.

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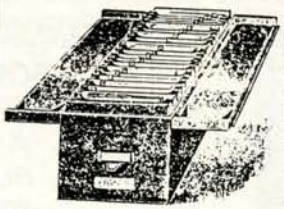

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CONVERT.BAS

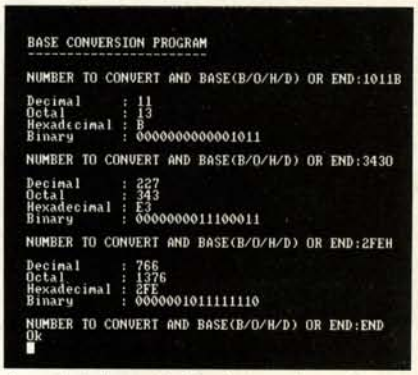
By Jason Sharpe

This program is a must for anyone who has ever sat down and done long winded calculations in order to discover what the hexidecimal equivalent of 1232 is. Not only will the program convert hex to decimal and vice-versa, you also have octal and binary numbers included in a neat on screen report.

In itself CONVERT is a startlingly obvious idea but it is one which we have not had sent into Listings Plus in quite this form. If you are one of those people who have an arsenal of programming utilities to hand, this should definitely be part of it.

In practice you provide a number followed by the base in which that number occurs. For example 101B would be 101 Binary and 1321O will be taken as Octal. If you forget to provide the base then the program prompts you for it. This last touch is a pleasure to see as many people would leave the program to crash at this point or at least assume a default base. Once the number has been entered, the on-screen display lists it in decimal, hexidecimal, octal and binary.

The highest numbers which can be coped with are 65535 (decimal), 16 bit (binary), FFFF(hexidecimal) and 177777(Octal). Mr Sharp explains that the program works by taking the input, converting it to upper case and then checking the string for B,O,H,D, using the INSTR function. If one of the letters is found, the variable T will be set to a number between 1(B) and 4(D), otherwise T will be 0 and you will be asked to enter the base you require. This will then be added to the input. Depending on the value of T, the program will jump to one of the conversion subroutines, which convert the input to decimal, which in turn is easy to convert to other bases. Once you have all the conversions you require, you simply type END instead of a number and exit from the program.



Converting to the preached. Cut down on tedious calculations with this handy conversion program.

```
10 REM ** Convert.Bas by Jason Sharpe*****                          1406
20 PRINT CHR$(27);"E";CHR$(27);"H":                                 0C9F
30 PRINT "BASE CONVERSION PROGRAM":PRINT"-----------------------":PRINT  1F64
40 INPUT "NUMBER TO CONVERT AND BASE(B/O/H/D) OR END:",A$            1BF2
50 A$=UPPER$(A$):T=INSTR("BOHD",RIGHT$(A$,1))                       1324
60 IF A$="END" THEN END                                             0962
70 IF T=0 THEN INPUT "WHAT IS THE BASE (B/O/H/D)",T$:A$=A$+T$:GOTO 50  1D5F
80 L=LEN(A$)-1:A$=LEFT$(A$,L)                                       0B60
90 REM ********CHANGE TO DECIMAL & PRINT RESULTS**********          18D9
```

The program basics are set up here with the clear screen routine, as always, early on in the program.

```
100 ON T GOSUB 190,220,240,270                                      0ADD
110 PRINT                                                           0466
120 PRINT "Decimal      :";DEC                                      0B17
130 PRINT "Octal        : ";OCT$(DEC)                               0DF0
140 PRINT "Hexadecimal  : ";HEX$(DEC)                               1107
150 GOSUB 290:PRINT "Binary       : ";BIN$                          0F48
160 PRINT:GOTO 40                                                   08FF
170 END                                                             0370
180 REM *****BIN-DEC*****                                           08F3
```

The ON T trap in line 100 is possibly the most efficient way of getting a menu to do what you want and, in this case, it isn't even a menu!

```
190 DEC=0:FOR N=0 TO L-1:DEC=DEC+(2^N)*VAL(MID$(A$,L-N,1))          193B
200 NEXT N:RETURN                                                   0978
210 REM *****OCT-DEC*****                                           090A
220 DEC=VAL("&O"+A$):RETURN                                         0AED
230 REM *****HEX-DEC*****                                           08F8
240 DEC=VAL("&H"+A$):IF SGN(DEC)=-1 THEN DEC=65536!+DEC             1400
250 RETURN                                                          050A
260 REM *****DEC-DEC*****                                           08D4
270 DEC=ABS(VAL(A$)):RETURN                                         0CD6
280 REM *****DEC-BIN*****                                           091B
290 BIN$="":FOR N=15 TO 0 STEP -1:T=DEC-(2^N)                       1314
300 IF SGN(T)=-1 THEN BIN$=BIN$+"0" ELSE BIN$=BIN$+"1":DEC=T        18CF
310 NEXT N:RETURN                                                   097D
```

The various subroutines for conversion are to be found here. Each one is straightforward but, combined, they make a powerful unit.

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Building Listed

We don't make up the listings in 8000 Plus. We need you to send us programs of general interest. What we need most are short programs, 50 lines or less, as this means that we can fit more into an issue. Longer examples will be used if they are brain-burstingly brilliant.

So, if you can wend your way around BASIC and would like to see your name printed in 8000 Plus as well as our signatures printed on a cheque, send us some lines.

Along with the listing itself (replete with REM's please) we require the listing saved in ASCII form on a disc together with documentation as a simple Ascii file (or in Protext format). The documentation should include instructions for use and details of how the program works. Include a printout of the documentation and a stamped addressed padded bag for the return of your disc. Don't forget the signed statement confirming that the program is all your own work and hasn't been submitted to anyone else.

Send all this to **Listings, 8000 Plus, Beauford Court, 30 Monmouth Street, Bath, BA 2AP** and allow up to 40 days for the return of your disc – we assess the listings in a batch once a month.

We may even consider using the occassional progam written in other well-known languages such as C or Pascal. These should not be too long.

THE LEARNING CURVE

Who really needs to program anyway? That's normally one of the questions posed by people facing the barrage of a programmer's obsessional ravings. Not a bad question either. One of the answers lies with the price of software and another has more than a little to do with the intellectual challenge involved.

The Learning Curve, in its brief lifespan, has set out to demystify the world of BASIC programming. We deal with the functions and commands in English and we assume next to no prior knowledge of programming.

The most difficult step in any worthwhile journey is the first. So why not take that step in the company of The Learning Curve?

GOSUB and RETURN

This month we are looking at **GOSUB** and **RETURN**. Like other BASIC functions, these two need each other to survive. But what do they mean? Quite simply, **GOSUB** means GO(to a)SUB(routine) and **RETURN** means RETURN from that Subroutine.

GOSUB, in principle at least, is a straightforward function. You use it as follows:

```
10 GOSUB 100
```

This simply sends the Program Pointer off to line 100 where a small subroutine will be carried out.

RETURN works in a very specialized manner. It does not go straight back to the line in which the **GOSUB** occurred. If it did, it would only encounter its own GOSUB which would force the pointer to head off again. No, it RETURNs to the line following the GOSUB: the next example should make that clear:

```
10 GOSUB 40
20 PRINT "This is where I have
   RETURNED to"
30 END
40 PRINT "This is the Sub-routine to
   which I go first"
50 RETURN
```

So far we have been talking about Subroutines in a rather blase fashion. But what is a Subroutine? Most BASIC programs are aimed at achieving one purpose. For example, a database program is there to record and return information. But within this database there will be a number of subroutines. The most common one will be the Menu from which you will choose whether to enter or access information. Then there will be the 'Enter information' and 'Access information' subroutines. In essence then, a program is like a large city made up of smaller boroughs.

Right, **GOSUB** and **RETURN** look quite simple at the moment. They should be simple ways of getting your program to go where you want it to go. They are also very powerful and, if not used in a disciplined manner, can cause all sorts of problems. Look at the next example:

```
10 GOSUB 100
20 GOSUB 200
30 PRINT "Oh dear"
40 END
100 PRINT "First routine"
110 GOSUB 400
200 PRINT "Second routine"
210 RETURN
400 PRINT "Off course"
410 RETURN
```

Type this into BASIC and see what chaos ensues. The **GOSUB** in line 110 makes a mess of the whole thing and should be whipped out as soon as possible. What you should do is to replace line 110 with:

```
110 RETURN
```

Then add this line: **21 GOSUB 400**

Finally add this: **410 RETURN**

As you can now see, each **GOSUB** has a **RETURN** and the program is back on course. Hopefully you might be getting the hang of GOSUB and RETURN.

To get a real idea of a subroutine, type in the following variation on the second listing.

```
10 GOSUB 100
20 GOSUB 200
30 GOSUB 300
40 PRINT "All done "
50 END
100 PRINT "First routine"
110 RETURN
200 PRINT "Main subroutine message..."
210 FOR count%=1 to 10
220 PRINT "The wall is down! "
230 NEXT count%
240 RETURN
300 PRINT "Last routine
310 RETURN
```

And that's the end of this month's Learning Curve, hope you get more Valentines than you expected and see you next month.

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Brighten up those midwinter days with Tipoffs!

Snowed under by the manual in LocoScript? Just drifting in BASIC? Cutting no ice in Mini Office? Then hail tipoffs – the red-hot pages that can melt the hoariest old problem. The champagne goes on ice this month for Martin Greig of Coventry, who sent in tips for LocoFile and LocoMail users and Elaine Bullard of Orkney, who can save all you LocoScript letter writers space and time. They win £10 each.

Tipoffs needs you! All those sneaky short-cuts, undiscovered features and problem-busting solutions you've found in LocoScript, LocoFile, Protext, BASIC, Mini Office or any other well-known program: share them with your fellow PCW owners. The rewards for the smartest ones are hard cash, up to £50 for really good ones – and of course immortality. Send them to:
Tipoffs, 8000 Plus, 30 Monmouth St, Bath BA1 2AP

Letters begin

QT Keep all your LocoScript letters to one correspondent for one year in the same file. Start each new one with a new page (using [ALT][RETURN]). When you print it, take the 'print some pages' option and give the range required.

This saves space and makes it easy to look up what you last wrote and when.

Film star

QT Use kitchen cling film to protect your keyboard from dust and dirt. Renew when torn or dirty – it costs next to nothing!

Both tips supplied by:
Elaine Bullard
Kirkwall
Orkney

WINNER

A tip that counts

QT The only practical way of counting the words in a LocoScript document is by spellchecking it with LocoSpell – but it's tedious to do a full spellcheck every time.

However, the latest version of LocoSpell offers an alternative. While editing the document, press [f7] and select 'automatic addition'. This adds all unrecognised words to the user dictionary and gives you a full word count at the end, without stopping at each doubtful word.

If the option doesn't appear on the menu when you press [f7], you need to upgrade your LocoSpell.

Christine Shuttleworth
London

***8000* PLUS:** *Anyone who's read the very useful Script – the LocoScript newsletter sent free to all registered users of LocoScript 2 – may have seen this tip already. It would still be nice to have a proper word counter though!*

WINNER

Characteristic tip

QT It can be a problem ending a merge when using LocoFile and LocoMail if you want to merge with only some of the records in the data file. Starting is easy using the (+Mail)$$Mainkey$Subkey(-Mail) command. You can also stop easily if you can write in to the LocoMail program some characteristic of the last record to be used – for example, when you reach the letter M as in the example on page 128 of the manual.

But how do you stop when you don't know the exact record to stop on; for example, if (as in my case) you want to use records from, say, 1 1 89 to 30 9 89, and the next record could be any date in October or November? You can't use a test like [+]M#Date"30 9 89":<:#:>[-]M or similar, as LocoMail seems to treat dates as strings rather than numbers, and can only handle = or <> tests. But you can get LocoFile to set up the test for you as follows.

Assuming an index called "Date", constructed on an item called "Date", begin the merge document with the following or similar:

```
(+Mail)$="Date":!Test="Y":#Test="
":<:$="999":#:>
Start=?;Date of beginning of
relevant period
Finish=?;Next date after last day
of relevant period
$$Finish:Next_date=Date
$$Start(-Mail)
```

If, as is likely, the date you give for 'Finish' is not actually in the index, this routine will go to the first record after the date you are interested in and store it (as "Next_date") for use as a test, and then set you up to begin the merge at the beginning of the relevant period. You then need at the end of the main document the following text:

```
(+Mail)$+:#Date="":<:Test=""
```

This pattern can be adapted for use with loops to get a listing from a data file, using (+Mail)%Loop@Test(-Mail). It can be used with alphabetic strings as well – for example, to stop a merge after all the Smiths, use as the "Finish" entry the name "Smith " – the space after the name is important.

Martin Greig
Coventry

Give me a buzz

QT Getting the PCW to beep at you in a BASIC listing is easy: the line PRINT CHR$(7) does it for you. But it quickly becomes annoying! Is there an alternative?

Gerald Hugh
Coventry

***8000* PLUS:** *Yes. The following routine, incorporated into the BASIC programs you write, gives you an alternative to the beep. Include the lines at the start of your program. Then, any time in the program where you want a quiet sound, just issue the command*
CALL buzz (a%,b%)
(just like in line 1000) and you get a nice discreet blip.

You can change the duration of the blip by changing the value of b% in line 250: putting b%=5, for example, makes it shorter, while b%=50 makes it much longer. Similarly, altering the value of a% makes the pitch of the blip higher or lower, if you can stand to hear it long enough to identify the pitch!

(If you aren't sure how to type in a listing, see 'How to type in a listing' on page 60 of this issue of 8000 Plus).

This works on all PCWs. If you like having pierced ears, you can still use PRINT CHR$(7) to get a beep.

```
10 MEMORY &HCB00-1
20 address=&HCB00 : ln=120
30 FOR i=1 TO 12
40 sum=0: READ code$,check$
50 FOR j=1 TO 21 STEP 2
60 byte=VAL("&H"+MID$(code$,j,2))
70 POKE address,byte
80 sum=sum+byte: address=address+1
90 NEXT
100 ln=ln+10 : IF sum<>VAL
     ("&H"+check$) THEN PRINT
     "Error: check data in line"; ln : END
110 NEXT
120 buzz=&HCB00
130 DATA e5d5c5dde54e2346eb5e23,664
140 DATA 566960cd1bcb3e0cd3f8dd,5c4
150 DATA e1c1d1e1c9f37dcb3dcb3d,79d
160 DATA 2fe6034f0600dd2130cbdd,443
170 DATA 093e0b000000040c0d20fd,18c
180 DATA 0e3f0520f83cfe0d20023d,310
190 DATA 3dd3f8444ffe0b20097ab3,4fa
200 DATA 2809794d1bdde94d0cdde9,4f7
210 DATA fbc90d0a43423432206d6f,3c2
220 DATA 64756c610943423533206c,328
230 DATA 7032094342353720657869,302
240 DATA 74091ac974091a00000000,1f7
250 a%=2000:b%=10

1000 CALL buzz(a%,b%)
```

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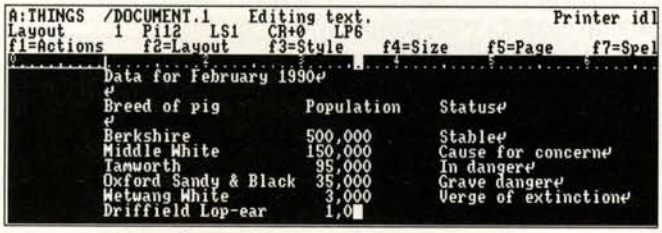
Quickies

You only have to ASCII

After converting files to ASCII format in LocoScript, I cannot re-edit them, but get a 'Not a LocoScript document' error message.
BW Jenkins
Abergavenny, Gwent

8000 PLUS: Create a new document on the same disc and press [f1] ([f7] in LocoScript 1). Choose 'Insert text' with the cursors and [ENTER]. On the disc management screen, move the cursors over the ASCII file you made and press [ENTER]. The contents of that file are put in the file you have created, giving you a normal, editable Loco file with the same contents as the ASCII file.

Select the insert text option...



...and the text from your ASCII file flows into the document you just created

Living memory

Ils there a simple way of installing a program in common memory from the start? I can use LDIR to move it from 100H, BASIC to poke individual bytes, or the equivalent LD,A byte followed by LD (address),A: or even ports and INDR – which gets me into all sorts of trouble! But if I ORG in common memory, after hexcom my file occupies 70K, most of it NOPs!
H Frost
Hemel Hempstead
Herts

8000 PLUS: I'm afraid you've beaten me completely there! Can any assembler-literate readers help out?

Got it taped

To remove an Amsoft disc label from the disc, don't use your fingernails – place a strip of sellotape across the label, smooth out and remove. The label comes away with the tape leaving a white smooth backing ready for your new label.
KF Heywood
Yeovil
Somerset

Carbon copy

You can double the life of expensive carbon (not fabric) ribbons by prising off the top, turning the ribbon upside down (so the hitherto unused bottom half is used) stuff it back in and put the top on again.

I have this idea for two fishes and five loaves – perhaps it might be more suitable for The Grocer?
Jerome Perkins
London, and 5,000 others

Half answer

In some versions of Protext, one and a half line spacing (from the >LS 1.5 command) can throw out the page breaks on the printed version compared to the screen version. The answer is to make the top margin the same as the bottom and the top header the same length as the bottom.
EF Marquis
London

This is an exfile

Any file called EXFILE is automatically executed when you go into Protext. This can be annoying if you don't want a long execute file executed necessarily – say a long phrase file which will be executed when returning to Protext from a spell check.

The solution is to put the line PAUSE at the beginning of an EXFILE. When this file is executed, it stops at the pause; any key press continues with the execute file except [STOP] which stops it.

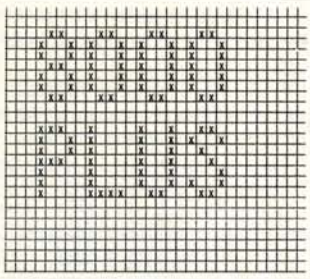
If you want to put in an instruction, do it in the line before preceded by a semi colon, like this:
;Any key to continue, STOP to stop PAUSE
...and so on.
Basil Pigg
Bath

Stitch that

Lola and Martin Taylor (8000 Plus, November 1989) don't need a special program to do cross-stitch designing – it can be done in LocoScript. This is also good for producing a square grid pattern if you need it for something else – playing battleships, perhaps!

Create a new document. Set the margins if necessary. Enter the codes
[+]UL[+]P17[ENTER]
[+]LP8[ENTER].

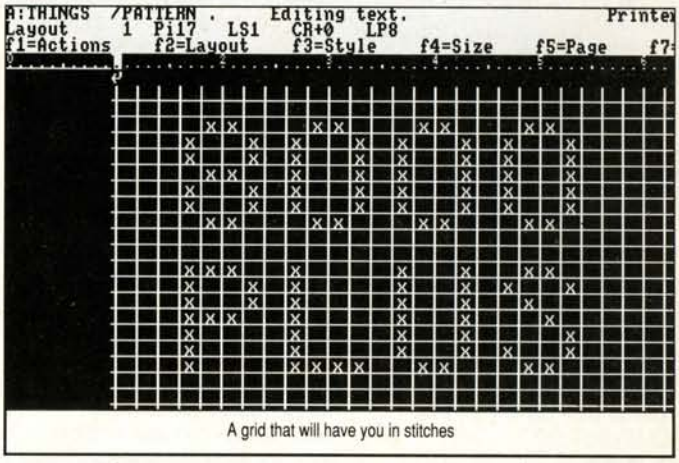
Fill the first line with a vertical line followed by a space, another vertical followed by a space, and so on. (That vertical line is [EXTRA] plus full stop in Loco 1, or [EXTRA] plus |Zl in Loco 2 – unless you have a PCW9512 in which case it's on the keyboard!). End the line with [RETURN].



Even if you don't like needlework, being able to print out a grid like this is useful

Go to the beginning of the line and press
[COPY][DOC][COPY]1[PASTE]1
and keep pressing
[PASTE]1
to get new lines as required. You can fill the whole page this way (if you're familiar with COPYing you can copy and paste bigger groups of lines to speed things up.

Save the blank and copy it or edit it as required. To 'fill in' a pattern, move to the relevant square and press [DEL]x or whatever letter you wish. To delete a letter x, move to it and press [DEL] followed by space. Press [RELAY] if the pattern is broken up and move by [CHAR] and [ALT][CHAR] rather than the sideways cursor keys.
Janice V Cox
Shrewsbury



A grid that will have you in stitches

Database problems in Mini Office

Q Can someone please tell me how, in a Mini Office database, to produce a two-column printed listing of Record Number and a Field Contact, so I can then jump straight to the record I want to edit using the GOTO button by consulting the listing.
J Newman
Devon

8000 PLUS: There's no way you can do it really, but a BASIC listing which enables you to insert the record numbers in each card in the database appeared in issue 28, January 1989, of 8000 Plus. It also appears in the Tipoffs Collection. Once you've done that, you can generate a report with the record number and a name or something in it and print it out that way.

Talking through their pork pie hat

Q I've been told that it's possible to run LocoScript from within Mini Office. Is this true?
Andrew Twyman

8000 PLUS: Afraid not. What you want is the program Flipper, which sets up your PCW so that pressing [SHIFT][EXTRA][EXIT] instantly flips you from Mini Office (or any other program) to LocoScript (or any other program) leaving you where you left off. It's advertised in 8000 Plus by Software Imperative.

Spreadsheet problems in Mini Office

Q I'm using a Mini Office spreadsheet to analyse historical data on dairy herds in Shropshire but have a problem. Cells with no data in are treated as being zero – thus throwing out averages and minima calculated by MEAN and MIN. Can you help?
Janice V Cox
Shrewsbury
Salop

8000 PLUS: Hmm. I can't think of any elegant ways. All you can do is get the zeroes ignored – though if there are any genuine zeroes, these will be ignored too!

Say you have figures in cells A1 to A10 that you want the minimum and average of. Put the total in A12, say, with the formula SUM (A1:A10).

Now, define B1 to be zero if A1 is zero, and 1 if A1 is not zero, with IF(A1>0,1,0). Then make B2 equal to B1+1 if A2 is not zero, or B1 if A2 is zero – do this with IF(A2>0,B1+1,B1). Similarly make B3 hold the formula IF(A3>0,B2+1,B2) and so on up to B10 – relative duplication of B2 down the row can make things easier.

Now the cell B10 should hold the number of non-zero entries you have in A1 to A10, so you can put the average into cell A14 (say) by the formula A12/B10 – remember the total is in A12.

For the minimum non-zero entry, the procedure is similar. Make C1 hold the value of A1 if it's non-zero, or else some large figure like 10000 (with the formula IF(A1>0,A1,10000); make C2 hold the value of A2 if it's non-zero or else 10000 similarly; and so on up to C10. Then the formula for cell C14, say, of MIN(C1:C10) gives you the non-zero minimum of cells A1 to 10. Unless they're all zero, of course, in which case you get 10000!

No-burns night

Q I want to leave my PCW switched on for long periods of time, as recommended, but don't want to burn out the screen. What can I do?
Dr M Wilkes
Edinburgh

8000 PLUS: Not much you can do in LocoScript other than turn the screen down to minimum brightness and contrast.

In CP/M, at the A>, if you're not in the middle of a program, put a disc with BASIC and the lines below, saved as a program BLANK.BAS

```
10 OUT 248,8 : a$=INPUT$(1)
20 OUT 248,7
30 SYSTEM
```

and type as the A> the command BASIC BLANK [RETURN]. The screen goes blank and restores at the next keypress.

In BASIC, a line like 10 will blank the screen until a key is pressed. If you want to blank a screen while some long operation is being carried out – plotting a Mandelbrot set or graphic overnight, perhaps – put the command OUT 248,8 beforehand and OUT 248, 7 afterwards.

Move it

Q I'm writing a game. In it, two vehicles are moved around the screen, one automatically – one square right each time a loop is executed – and the other optionally by the player using the cursor keys. If no key is pressed, the vehicle stays where it is. How can I do this?
Peter Lewis-Smith
Fishguard, Dyfed

8000 PLUS: Well, the listing below may enlighten you. The notes should explain what's going on.

```
10 PRINT CHR$(27)+"E"+CHR$(27)+"H"
20 a=50:b=50:PRINT CHR$(27)+"Y"+CHR$(a)+CHR$(b)+"o"
30 x=55:y=55:PRINT CHR$(27)+"Y"+CHR$(x)+CHR$(y)+"x"
40 FOR j%=1 TO 10
50 PRINT CHR$(27)+"Y"+CHR$(a)+CHR$(b)+" o" : b=b+1
60 t=0
70 t=t+1 : k$=INKEY$ : IF t<50 AND k$="" THEN 70
75 FOR s=t TO 50 : IF x=x AND y=y THEN : NEXT
80 PRINT CHR$(27)+"Y"+CHR$(x)+CHR$(y)+" "
90 IF k$=CHR$(31) THEN x=x-1
100 IF k$=CHR$(30) THEN x=x+1
110 IF k$=CHR$(1) THEN y=y-1
120 IF k$=CHR$(6) THEN y=y+1
130 PRINT CHR$(27)+"Y"+CHR$(x)+CHR$(y)+"x"
140 NEXT
```

Notes

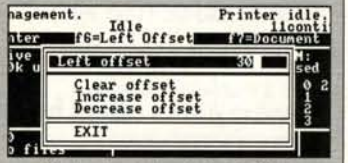
10 clears the screen
20 puts the initial first vehicle, marked by an o, on the screen
30 does the same for the second, marked by an x
40 starts a ten-stage loop. In each stage the o will be moved one to the right, the x one square in the direction of the cursor
50 moves the o one to the right by overprinting 'o' with ' o' (i.e. a space then an o, apparently moving it one right)
60 sets a time counter, t, to zero
70 increases t by 1 and makes k$ equal to the last character pressed on the keyboard. If nothing has been pressed (i.e. if k$ is "", that is to say, empty) and t is less than 50, the line is repeated – i.e. there are up to fifty 'scans' of the last key pressed, ending if a key is pressed meantime.
75 if a key was pressed, some dummy operations are performed. This makes sure that each time the loop from 40 is performed, the action will take about the same time on screen. Otherwise, if you pressed a key quickly, that loop would take much less time than if you didn't press a key at all during the loop.
80 overprints the current position of x with a space
90-120 change the position of the car x, recorded by x and y, in accordance with the key press: 31 for the up cursor, 30 for the down, 1 for the left, 6 for the right)
130 prints the x on screen at the position recorded by x and y – which, if no key was pressed, is the same as the x and y we had at the start of this loop
140 starts the next winding of the loop
To make the movement of the objects faster, make the 50 in lines 70 and 75 smaller. To make it slower, make it bigger.

Feeding time

QT Amstrad's automatic sheet feeder supplied with the 9512 is a boon, but there are difficulties. Changing the ribbon or print wheel is a fiddly business, particularly when the daisy wheel is at the extreme left hand edge of the platen. The left hand edge of the bail bar obstructs the left hand side of the ribbon cassette. It is only marginally less difficult if the daisy wheel is in the centre of the platen.

To get the daisy wheel in this position from the disc manager, press [PTR] and increase the left offset to an appropriate figure – say 30 – by pressing [f6]. Press [ENTER] and the daisy wheel moves to the middle of the platen, freeing it from the edge of the bail bar.

You can now lift the cover and change the wheel or ribbon. [EXIT] puts you back into disc management mode.
A Graham Johnston
Lanarkshire



Moving the print head with 'left offset'

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Random chance

Q How do I get random numbers in a BASIC listing?
Peter Lewis-Smith
Fishguard
Dyfed (again)

8000 PLUS: To get a random number assigned to a variable x use the command
X=RND
which makes x anything between 0 and 1. Similarly
*X=RND*10*
gives you a random number between 0 and 10.

However, most of the time you want a random whole number between, say, 1 and 10 inclusive. Now, if you use the line
*X%=RND*10*
you get something odd in the distribution of the results. Suppose you get a thousand numbers by this line; you'll get about a hundred 1s, a hundred 2s, and so on up to a hundred 9s – but you'll only get fifty 10s, with an unwanted fifty 0s too. So, add the line
IF X%=0 THEN X%=10
and your distribution will be right.

Finally, because of the way your PCW works out random numbers, you always get the same sequence every time you run a program – unless you include the line
RANDOMIZE PEEK (64504!)
somewhere before you start asking for random numbers. This will give you a much more random selection.

Better template than never

One template per group in LocoScript can be restrictive, and it's difficult to distinguish them as they're all called TEMPLATE.STD!

So here's an alternative method of working. Name the first group TEMPLATE and keep it exclusively for templates. Give them systematic names, for example LET_A410.007. (The underline character is [SHIFT] hyphen). The LET says it's for letters, A4 size, at 10 pitch. The .007 shows it's template number 7.

To create a document in that template, copy the template to the required group using [f3], giving the new name when copying as the name the document is to have, but leaving the .007 at the end. Then the name of the document might be MUM3.007, showing it's the third letter I've written to Mum this year, in template number 7.

This loses the ability of creating documents with C and also the first group. But on the plus side you can see easily from a document's name which template it was written in – by referring to the TEMPLATE group list – and you have an unlimited number of templates.
Doug Maughan
Winchester

What boots it

Here's a way to create a PROFILE.SUB file in one line! Remember that, if you have the files SUBMIT.COM and J(whatever)CPM3.EMS on your startup disc for a program, then anything contained in the file PROFILE.SUB will be 'typed in' for you automatically on start up.

If, for example, the PROFILE.SUB contains the word
OFFICE
then the above files on your Mini Office startup disc would cause Mini Office to be run automatically.

Here's how to create that PROFILE.SUB file. Run up CP/M by inserting your CP/M disc (or a copy) and at the A> type
BASIC
ending with [RETURN]. Then when the 'Ok' appears type
OPEN "O",1,"PROFILE.SUB":PRINT #1,"OFFICE":CLOSE 1
– and this creates a file called PROFILE.SUB on the disc with the required line.

To run a BASIC program directly on startup in this way, called GAME.BAS say, the line would be
OPEN "O",1,"PROFILE.SUB": PRINT #1,"BASIC GAME": CLOSE 1
and if you want two or more lines, make each one a separate PRINT #1 statement, separated by colons.

To check the contents of the PROFILE.SUB file, type
TYPE PROFILE.SUB to view the result.
Alistair Craigie
Prestwick
Ayrshire

If it moves, lock it

Is there any way of selecting 'caps lock', in which all letters come out as upper case but numbers as numbers, postcode fashion (E.G. HU14 7DF ETC.) from within a BASIC program without the user having to press [ALT][ENTER]?
Alistair Craigie
Prestwick
Ayrshire

8000 PLUS: Yes. This routine does it:

```
01 FOR address=&H3B TO &H48
02 READ byte$ : byte=VAL("&H"+byte$) : POKE address,byte
03 NEXT : routine=&H3B : CALL routine
04 DATA 01,20,10,CD,5A,FC,DD,
        00,CD,5A,FC,DA,00,C9
```

Those 0s in the data statement are zeroes, not letter Os. The penultimate line of the program, to remove the lock, then becomes

```
POKE &H3D,0 : CALL routine :
```

This routine was written by John Eggeling, one of Tipoffs' regular contributors.

Protext power start

Making your Protext copy disc as a startup is easy. The files you probably have on are something like

CONFIG .COM 28K PCW .PTR 2K PROTEXT .COM 44K
DCOPY .COM 4K PROFILE .SUB 1K SPELL .COM 24K
J14CPM3 .EMS 40K PROTEXT .CFG 1K SUBMIT .COM 6K

...total 150K. Fine, except that you don't quite have room to get the 29K file SETPRINT on it. Shame that the SUBMIT and PROFILE take up the 7K that would let you get it on.

The answer on an 8256 or 8512 is to hack into J14CPM3.EMS using SID to make it run PROTEXT.COM automatically. Usually it looks for a file SUBMIT.COM automatically on startup and automatically runs that – provided there is also a file PROFILE.SUB on the disc.

So, use SID to hack into the .EMS file on your startup and change SUBMIT at 5CA2 to read PROTEXT instead. Then use Protext to create an empty file PROFILE.SUB on the disc; erase SUBMIT.COM and PROFILE.SUB which you don't need any more; you can now add SETPRINT.COM and still have 1K free!

If you're not familiar with SID, the steps are as follows. In CP/M, with your CP/M copy disc in the drive (side 3 if you have an 8256 or 8512) type
SID
ending with [RETURN]. At the # prompt, insert your Protext startup (copy) disc and type
RA:J14CPM3.EMS
ending with [RETURN]. Now type
d5ca2
[RETURN] and you should see in the table on the right hand side the words SUBMIT. To overwrite this with PROTEXT, type
s5ca2
[RETURN] and then type
"PROTEXT
– the quote is important – then [RETURN], then a full stop and [RETURN]. Then save the amended file with
WA:J14CPM3.EMS
[RETURN] and there you go. Leave SID by pressing [ALT]C.

Finally, save a completely empty file under the name PROFILE.SUB. You can now erase SUBMIT.COM and copy SETPRINT.COM onto the disc instead. Your disc now starts up CP/M as normal but runs PROTEXT straight away, without ever showing the A> prompt.

Your new directory on the startup disc will be

CONFIG .COM 28K PCW .PTR 2K PROTEXT .COM 44K
DCOPY .COM 4K PROFILE .SUB 0K SETPRINT.COM 29K
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Basil Pigg, Bath, Avon

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The Good Software File

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash.

Have fun window shopping!

Word Processors

PROTEXT/ POCKET PROTEXT

Powerful

£59.95/£29.95 • Arnor • 0733 68909

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with key combinations rather than menus, but uses LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version – essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

EASY LABELLER

£34.44 • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

LOCOSCRIPT 2

Good Value

£24.95 • Locomotive Software • 0306 740606

As bundled with new 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ New 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

LOCOSPELL

£19.95 • Locomotive/Amsoft • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent sloth.

PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelt words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

LOCOMAIL

Useful

£29.95 • Locomotive/Amsoft • 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Poweful selection procedures - like a database
- ▼ Need separate program to sort and filter addresses before a print run

PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly.
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

POCKET WORDSTAR

£49.95 • MicroPro/Davis Rubin • 0386 853610

For many business users, word processing means Word Star. Almost everything you could need in a text processor is here and despite the title this "Pocket" version has all the features of the original. Efficient and proven, but now showing its age and there are alternatives unless you are committed to WordStar already. £20 extra buys the De Luxe version with spell checker.

PLUSES • MINUSES

- ▲ Probably the world's most widely used word-processor
- ▲ Documentation is complex but well-structured
- ▲ Includes a mail merge utility
- ▲ Keystroke commands fully described on on-screen menus
- ▼ Doesn't make full use of the PCW keyboard and printer
- ▼ Page and margin formatting commands awkward to use

NEWWORD

£69.00 • NewStar Software • 0245 265017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar. Comes with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystokes are still as obscure

PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keypad and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

PLUSES • MINUSES

- ▲ Menus simple – easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

LOCOKEY

£14.95 • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character
- ▲ Is fun and easy to use
- ▼ Will only be of limited use

ANSIBLEINDEX PLUS

£29.95 • Ansible Information • 0672 62576

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will then compile an alphabetical list of entries complete with the page number on which they appear. A friendly, useful little package.

PLUSES • MINUSES

- ▲ Don't need to convert files into ASCII files
- ▲ Word counter also included
- ▲ Runs with both LocoScript 1 and 2
- ▲ One index can be created for a series of documents
- ▲ Indexes can be edited on screen
- ▲ Index entries can be inverted; instead of 'mutton pie,' for example, 'pie, mutton.'

Accounts

VITAL PROCESSOR SERIES

Easy to use

£29.95 - 39.95 each • Vital Software • 0732 810330

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of all your possessions and put a value on them, while the Income Processor helps you keep tabs on your incomings and outgoings.

PLUSES • MINUSES

- ▲ Income Processor allows you to budget efficiently
- ▲ Insurance Processor can complete inventories room by room
- ▲ Savings Processor is a fast and efficient way of keeping track of share values
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming
- ▼ With the Income Processor, it's difficult getting all the information you need from the manual
- ▼ It's not always clear how some of the operations work

CHECK ACCOUNT II

£14.95 • Molesoft • 03722 75053

Written specifically for the home user, this program maintains four accounts per disc in familiar bank-statement form. Its analysis feature shows trends and forecasts how much you can afford to spend. The interest-estimating feature can keep track of Building Society accounts where interest earned varies with the amount deposited.

PLUSES • MINUSES

- ▲ Designed solely for home accounts
- ▲ Easy to learn from demo file
- ▼ Relatively slow screen update
- ▼ You have to be organised to keep it up to date

DIGITA BUSINESS CONTROLLER

Easy to use

£69.95 • Digita International • 0395 270273

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced, and problems with VAT handling– not really for VAT businesses. For other small business it's very good value.

PLUSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ No facility for producing aged debtors/ creditors list

BOOK-KEEPING AND ACCOUNTS

£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

PLUSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

COMPACT ACCOUNTS

£199.00 • Compact Software Ltd • 0703 611214

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

PLUSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers
- ▼ Lots of disc swapping necessary
- ▼ Can be slow to use – it runs in Mallard Basic
- ▼ Quirks in cash allocation routine and account code system

M.A.P. INTEGRATED ACCOUNTS

Powerful

£249+VAT • MAP Systems • 061 624 5662/3

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a l ittle cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

PLUSES • MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case

CORNIX SIMPLE ACCOUNTS

£69.95 • Cornix • 0462 422232

Simple cash-book style package which allows you to keep track of debtors and creditors (though not aged ones). Simple to use and you can make changes if you make a mistake. Slow to use for complex operations and number of entries in given period is limited, but very good simple program for small businesses.

PLUSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▼ Slow for complex operations
- ▼ Ability to alter figures won't please accounting purists

CAMSOFT PSIL

£180.14+VAT • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the softwarecan be squeezed into the M drive. Good package for a small company.

PLUSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

IN BUSINESS

£149.90 • Cavalier Software • 01-639 6683

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses

PLUSES • MINUSES

- ▲ Other packages (eg: 'Teleadd' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▼ Manual gives you a confusing number of options

SMALL BUSINESS ACCOUNTS

£69.95 • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

PLUSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

SAGE ACCOUNTS

Best general buy

£87 • Sagesoft • 091 2131555

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of setting up. But a number of limitations, eg. the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

PLUSES • MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation
- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single Nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer – need 17 pitch daisywheel

M.A.P PAYROLL

£199+VAT • MAP Systems • 061 624 5662

PLUSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record all amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

SAGESOFT POPULAR PAYROLL

£61 • Sagesoft • 091 2131555

PLUSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▲ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

COMPACT PAYROLL

£139+VAT • Compact Software Ltd • 0703 611214

PLUSES • MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles – data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

CAMSOFT PAYROLL

£60+VAT • Cambrian Software • 0766 831878

Desktop Publishing Accessory Discs

HD1 CLIPS & FONTS £13. 50 (NB*")
12 Versatile fonts plus 60 clip art illustrations

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(NB* HD 1&2 are available for all DTP except the Desktop Publisher)

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HD4 "POSTER KIT" £13.50
(Available for all DTP)Larger cut and paste lettering in four styles inc. Olde English outline.

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TELEPHONE: 04867 81394

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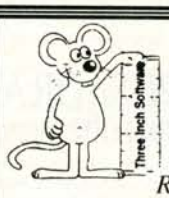

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Kingston upon Thames, KT1 2HG

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2 3/4 x 15/16	8.00	29.35
2 3/4 x 1 7/16	9.75	36.95
3 1/2 x 15/16	8.50	31.55
3 1/2 x 1 7/16	10.95	42.35
3 1/2 x 1 15/16	14.90	59.45
4 x 15/16	8.95	33.95
4 x 1 7/16	11.45	44.30
4 x 1 15/16	15.05	59.95
2 ACROSS		
2 3/4 x 15/16	7.35	26.50
2 3/4 x 1 7/16	8.75	32.55
3 1/2 x 15/16	8.20	30.10
3 1/2 x 1 7/16	10.95	42.35
3 1/2 x 1 15/16	14.90	59.45
4 x 15/16	9.25	34.75
4 x 1 7/16	11.45	44.30
4 x 1 15/16	14.70	58.95
3 ACROSS		
2 3/4 x 15/16	7.16	25.67
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FREE TAPE DISPENSER/CUTTER (Worth £5.75) with every 10000 labels!

GOOD SOFTWARE GUIDE

PLUSES · MINUSES
- ▲ Full payslip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any payslip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

Easy to use

CHECK ACCOUNT TWO

£14.95 • Molesoft • 0372 275053

A program that has been written specifically to keep track of personal household accounts. As well as being able to store the details of up to four different accounts per disc, the program records all withdrawals and deposits and will allow an inspection of the current state of any account at any time. It also reveals both the minimum and maximum figures to which the balance has either sunk or risen over previous or current months. Also incorporated are comprehensive interest-calculating options. A solid, competent package.

PLUSES · MINUSES
- ▲ No double-entry book-keeping or VAT returns to wrestle with
- ▲ Very easy to use
- ▲ Can carry last month's spending levels forward into the next month
- ▲ Tiered interest rate option available

EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Ventures • 1 Foxwell Square, Southfields, Northampton NN3 5AT

Another PCW accounts package this time for the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

PLUSES · MINUSES
- ▲ Comprehensive List and Search facilities
- ▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
- ▼ Not a particularly easy package to use
- ▼ You would have to be exceptionally well-organised to use it

MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 01 743 9792

This accounting package has been designed for individuals, small businesses and clubs – anyone who might find a larger accounting package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

PLUSES · MINUSES
- ▲ Up to 20 different kinds of accounts are catered for
- ▲ Up to 50 transaction codes help categorise income and expenditure
- ▲ Needs little computer or accounting expertise
- ▲ Information can be displayed in the form of a bar or pie chart
- ▼ Too limited for bigger businesses
- ▼ Over-featured for domestic use

DG PAYROLL

£39.95 (£79.95 for DG Payroll Plus) * Digita International * 0395 270273

A computerised payroll program for the small PCW-based business which covers all PAYE, Statutory Sick Pay and Statutory Maternity Pay requirements. The package can handle up to a hundred employees and their pay requirements whether they are weekly-paid or salaried staff.

PLUSES · MINUSES
- ▲ Good menu arrangement
- ▲ Automatic calculation of deductions: SSP, etc
- ▲ End of year routine could save time
- ▼ Understanding and experience of PAYE is essential
- ▼ Basic version of software needs frequent updating
- ▼ Won't save the smaller company any time

Utilities

BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

PLUSES · MINUSES
- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▼ Namesakes must be exact matches
- ▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

PCW DRAW

£39.95 • HTB Computing • 0794 516279

Draughting package written specifically for the PCW machines. Program is teaming with features - built-in shapes and free-hand drawing facility - which, used with practice and imagination, could provide professional-looking output.

PLUSES · MINUSES
- ▲ Very comprehensive text entry and printout format options
- ▲ ZOOM facility allows you to edit small sections of a draught pixel by pixel
- ▲ Many useful functions: different line thicknesses, hatching ..
- ▼ No support for plotting devices like mouse or light-pen
- ▼ PCW Draw doesn't consider the PCW's screen aspect ratio: on-screen drawings look twice as high as wide

PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

PLUSES · MINUSES
- ▲ Perfect for the complete novice
- ▲ Clear, confidence-boosting manual
- ▲ Can recover data varying in amounts from a few bytes to a complete disc.

PRO-PERFORMER

£59.90 • Electromusic Research • 0702 335747

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

PLUSES · MINUSES
- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict in tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

JOB ESTIMATING & PRODUCT COSTING

Useful

£79.90 each • Cornix Software • 0462 422232

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines - recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

PLUSES · MINUSES
- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description

TEMPDISC 8.2

£19.95 • Thurston Techniques (0395 277496) • 8512s only

Disc of ready-made templates to be used inside LocoScript.2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

PLUSES · MINUSES
- ▲ Has included files to complement LocoMail's invoicing facilities
- ▲ Very easy to use
- ▲ Vast range of templates available
- ▼ Not so good if you don't like lots of visual trimmings

FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0522 524990

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.

PLUSES · MINUSES
- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

POOLS PREDICTOR

£17.95 • Corwen Computing • 0490 2902

This program helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

PLUSES · MINUSES
- ▲ Very easy to use
- ▲ More accurate than the newspaper pundits
- ▼ Entering form results from week to week is tedious

LOCOFONT I

£19.95 • Locomotive Software (0306 740606) • 8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman and Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

PLUSES · MINUSES
- ▲ Eight new fonts, one coming for free
- ▲ Each style supports all accents, characters, etc.
- ▲ Relatively cheap and easy to use
- ▲ Can break out of that one-pattern printout.
- ▼ Can't mix styles in one document
- ▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant

TAS-SIGN

£29.95 • Tasman Software • 0532 438301

Takes time to print out but you can print signs of up to five lines of text up to seven inches high with up to 32 characters in each. Four fonts, eight hatching patterns, and you can print lengthways on continuous paper for long signs.

PLUSES · MINUSES
- ▲ Wide range of fonts and shadings
- ▲ Long signs will print out in 'landscape ' (sideways) format
- ▼ Long signs take time
- ▼ Some symbols (yen signs etc) won't print out on PCW

GILLIGAN'S GUIDE

£29.95 - 49.95 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area loosely 15 square miles; it will list all the places included on the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map.You can also interrogate the system so that it only gives

you details and locations ofsites of special interest.
PLUSES · MINUSES
- ▲ A thorough, versatile and easy to use package
- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission you own made-to-measure guides

STAR TRACK
£14.95 · Discovery Software · 01 840 5252

A fun and informative program with which you can display on your computer screen all of the 88 constellations and 600 or so stars that are recognised by today's astronomers. You can also see how their positions in the sky change depending on your location (which could be anywhere in the world) and the time (any time between 1000 and 2999 AD).
PLUSES · MINUSES
- ▲ Excellent manual with helpful practice exercises
- ▲ Comprehensive list of ready-made latitudes and longitudes supplied
- ▲ Cycle option transports you forward a month at a time so that you can chart the stars' progress
- ▼ Screen displays could be more exciting
- ▼ Moon and planets aren't included

DATA DIARY
£16.95 · A4 Ideas · 0249 815082

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript so you can make use of all LocoScript 2's text and style enhancements. Inserts feature year to a page calendars, month at a glance planners and page a day formats.
PLUSES · MINUSES
- ▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
- ▲ 2 versions available - for A4-size and Filofax-size printout
- ▲ A solid, no-frills product that's easy to use

INVESTOR
£29.95 · B & BB Software · 0240 242946

Program has been designed to assist the share-owner in the management of a portfolio and to help in the choice of shares to buy and sell. It allows up to 300 stocks, shares or unit trusts to be kept in its library. Stocks are listed in order of their performance and you can call up graphs of price movement for individual stocks.
PLUSES · MINUSES
- ▲ Manual is very easy to follow
- ▲ Records share-holdings, dividends and cash accounts
- ▲ Dividend printout for tax purposes
- ▲ Four methods of share price analysis
- ▼ No ability to calculate taxable gains
- ▼ Graphs are small and lack expansion facility
- ▼ 9512 owners won't be able to print out the graphics

PERSONAL TAX PLANNER
£24.95 · Digita International · 0395 270273

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill!) Can, for example, find out whether married couples would be better assessed separately or not. Annual updates available.
PLUSES · MINUSES
- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application – might only use it once a year
- ▼ Can't handle unusual cases
- ▼ Program updates (for a new allowance level) cost £10

KNIFE PLUS
£19.95 · Hisoft · 0525 718181

An essential tool for retrieving data from corrupted discs. Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.
PLUSES · MINUSES
- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

WISE ONE
£34.95 · Swallowsoft Publications · 0420 63793

An expert system – you input rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in. From PO Box 107, Walton on Thames, Surrey KT12 5PQ.
PLUSES · MINUSES
- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules – need programming instinct
- ▼ Manual dry and academic

FLIPPER 2 PLUS
£29.95 · Software Imperative (0225 425315) · 9512/8512 only.

Useful

Can do everything the original Flipper did and more. You can now flip Mini Office and LocoFile and will have no problems with whatever version of LocoScript you're using.
PLUSES · MINUSES
- ▲ Easier to install than its predecessor
- ▲ Can flip between environments in as little as 2 seconds
- ▲ Professionally-presented documentation
- ▲ Works with most CP/M programs, LocoScript and BASIC
- ▼ Still won't work with many self-loading games
- ▼ Be careful of state of printer and disc drives when flipping.

SUPER TYPE II
£14.95 · Digita International · 0395 270273

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once – after that, the new chosen font is available.
PLUSES · MINUSES
- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All LocoScript's print size and style options still work
- ▼ You can't mix different fonts in the same document

DAATAFAX
Basic version £39.95 (with Microfile £49.95/with mouse £79.95) · Kempston Data · 0234 841224

Used with personal ring-binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.
PLUSES · MINUSES
- ▲ Flexible and easy to use; saves buying inserts
- ▼ Not very sophisticated: keeping it up to date is tedious

DHCP 12-TRACK SEQUENCER SOFTWARE
£45 · DHCP · 0440 61207

The second add-on 'recording studio' for the PCW consisting of MIDI interface and software. Can cope with up to 12 tracks, all of which are polyphonic and which can be as long as the PCW memory allows. Can also cope with quite advanced instruments.
PLUSES · MINUSES
- ▲ Cheaper than its competitor
- ▲ Tracks can be bounced to enable several tracks to all be put into one
- ▲ Looping can start/end at any bar
- ▲ Add-ons available for Casio and Korg synthesisers
- ▼ Manual is skimpy
- ▼ No editing possible without re-recording whole tracks

DTP

FLEET STREET EDITOR PLUS
£49.95 · Mirrorsoft · 01 928 1454

Versatile and powerful package. You can create template-like 'page dummies' if you use several pages of the same format, and handling of text, setting of margins and size of text boxes etc, is well controlled.
PLUSES · MINUSES
- ▲ Versatile integrated package
- ▲ Text handling and editing sophisticated and controlled
- ▲ Can set up page dummies for regularly used formats
- ▼ Odd use of memory in text editor
- ▼ Still lots of serious bugs even now and crashes occasionally

NEWSDESK INTERNATIONAL
£25 (with lightpen £50) · The Electric Studio · 0462 420222

Versatile package with a very wide range of graphics facilities and high quality headline text. Page make-up is flexible, though the program can be a bit cumbersome, mainly in text handling. Same graphics facilities as Electric Studio's 'Art' package which it supersedes.
PLUSES · MINUSES
- ▲ Good control over the elements on the page
- ▲ Powerful graphics facilities
- ▲ Good quality print in headlines and large fonts
- ▲ Can use font editor to create your own high quality fonts
- ▼ Text-handling slow and cumbersome; editing is difficult

STOP PRESS
£49.95 · Database · 0625 878888

An excellent DTP Package, very strong on graphics, very well designed, and once you get used to it, easy to use. Sophisticated text handling features such as autoflow, but can't edit text – that all has to be done in your word processor before flowing the text in. A lot of good fonts supplied too.
PLUSES · MINUSES
- ▲ Excellent graphics facilities, good as any graphics program
- ▲ Wide range of text styles with text autoflow
- ▲ Menu and key commands system suits beginner and expert
- ▼ No text editing ability

THE DESKTOP PUBLISHER
£29.95 · Database Software · 0625 878888

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text from within the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics too, at half price of its rivals! Mouse optional for £50 more.
PLUSES · MINUSES
- ▲ Text editor allows you to edit articles to fit the space eaily
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice, but fine with keyboard alone
- ▲ Half the price of other packages
- ▲ Good range of fonts and graphics, and can design your own
- ▼ Can't fix size of text boxes – they expand to take all the text
- ▼ Headlines can look a bit jagged

LATE EXTRA
£19.50 · Exemplar Designs · PO Box 683, Bath, BA1 1XU

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page. Also supplied on disc is a 13-page publication which describes how to create your own professionally-produced publication. Now you can create a good-looking page with readable text.
PLUSES · MINUSES
- ▲ Good range of 11 complementary fonts
- ▲ Can adapt template for own use
- ▼ Time-consuming
- ▼ Text needs reducing for best results

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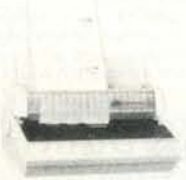

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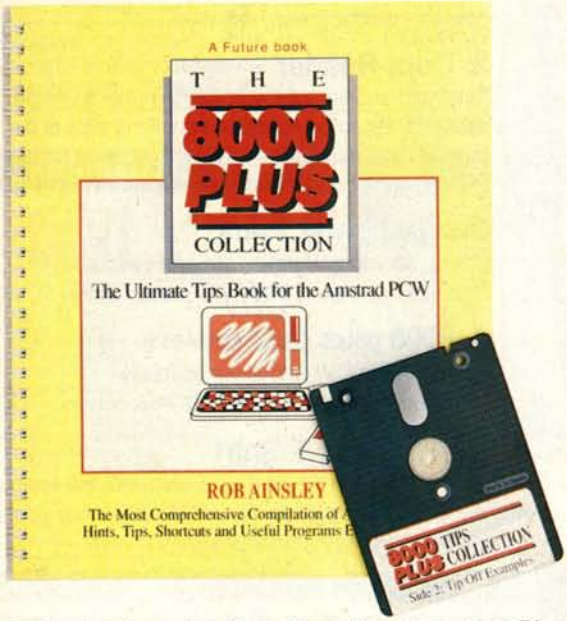

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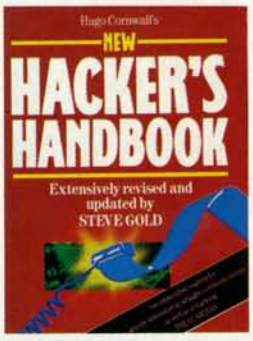

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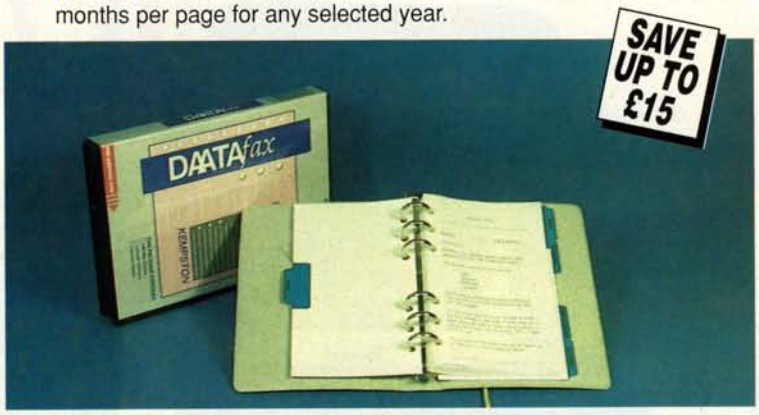

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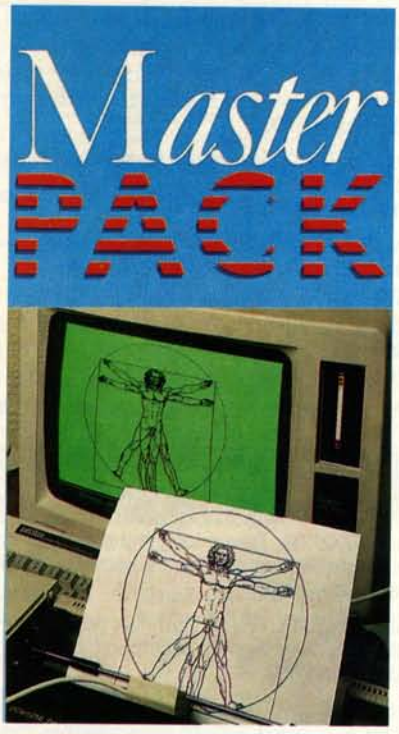

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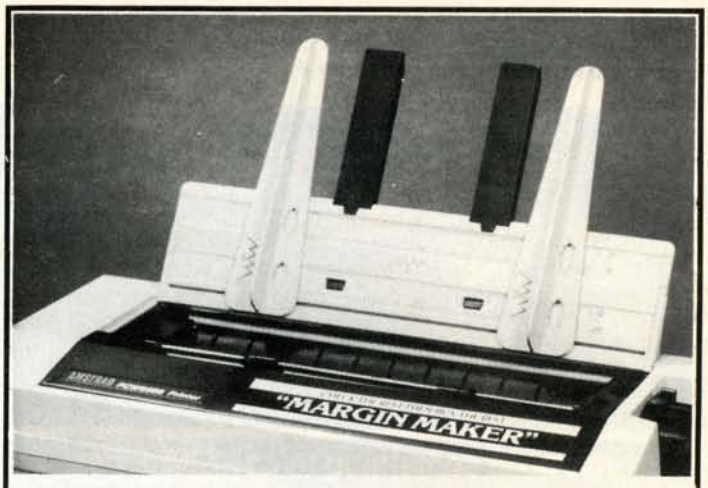

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POST SCRIPT

Do you have something to say? Why not share it with the rest of us?

There's bound to be someone out there who can contradict you outright within eyeshot of an entire nation of PCW users. But look on the bright side; these pages might even provide you with the answer to your latest problem or the missing link in your most recent discovery. Why not give it a try and send your letter to:
Post Script, 8000 Plus, 30 Monmouth Street, Bath, Avon BA1 2AP.

Touch and go?

Seeing that I am just a two-finger typist, I decided to take advantage of the special offer in 8000 Plus to purchase the Touch 'n' Go keyboard mastery program for use on my PCW 9512. This arrived a couple of days ago and I set to almost straight away.

I noticed that most of the screen displays bear the heading: 'To quit hit your escape key.' When I finished my exercises that day, I duly hit what I assume serves as an escape key on the 9512, namely the EXIT key. This brought my exercises to an end, but I also wanted to quit the program. The EXIT key brought the word 'escape' surrounded by asterisks onto the screen, but, very shortly, the screen scrolled to ask what other lessons I wanted to tackle, or did I want to learn about letters or numbers? Try as I would, there seemed no way of leaving the program in any sort of controlled manner. Ultimately, I used SHIFT, EXTRA and EXIT and carried on with something else.

In the meantime, I have spoken on the phone to three different people at Paperback Software in Chelmsford. All of them were very pleasant and seemed as if they wished to be helpful. I explained that I was a 9512 user and merely wanted to know how to exit from the program.

A number of responses were forthcoming, none of them particularly helpful. I need hardly mention that I am no nearer to finding a way to make an orderly exit from the program. Such an exit is clearly intended, otherwise why ask the user to key in his name before the start of the first lesson, so as to be recognised subsequently?

If I were more into CP/M, I might be able to help myself: alas, I am not and cannot.

L N Weeks
Teddington, Middlesex

***8000* PLUS:** *This looks like another case of lousy documentation. We 'phoned up New Star Software who told us that to leave the program's exercises and save the score, you should press the [EXIT] key – once. To exit from the program entirely, they assured us, all you had to do was press the same key a total of four times. Not having the program available, we can't give it a try, but let us know if you have any more problems.*

Really the end?

I have received several letters from 8000 Plus readers (all of them friendly) since the BRITMAP series ended. Most of them have pointed out that something at line 990 was missing. 990 END is all it actually needs, and this shouldn't have been too difficult for most readers!

However, the original program did contain two lines (the first one just tidying up). These are printed below, in case you get queries or you feel like publishing an amendment. A couple of readers had difficulty with the windows, almost certainly through not reading the instructions that spaces were important in line 30. But, happy to say, nobody has found anything very major!

```
990 PRINT en$w$c$e$"1"
999 END
```

and finally,

```
30 w$=e$="x ?y" :w1$=e$+"x
?"+CHR$(96):wr$=e$+"x a?8"
```

Geoffrey Childs
Winchcombe, Gloucestershire

***8000* PLUS:** *Thanks for that, Geoffrey.*

Early demise

I am just recovering from the shock received on reading the current issue of 8000 Plus, for in that issue you state, as a seemingly throw-away remark, that discs only last for two years or so. What a shock. I had never imagined that discs would last into eternity – but for only two years? I have a thesis on disc which I started about four years ago so it looks like some of the discs are living on borrowed time. I wonder if you have any comments – apart, that is, from that of getting copying as quickly as possible.

Additionally, I would welcome information in 8000 Plus about the health aspects of computing – in particular the physiological effects on joints and so on. At the moment I am experiencing considerable pain in my right shoulder – the consequence, presumably, of working too long at the keyboard. A specific aspect of this difficulty might merit particular comment.

Again, thanks for a very enjoyable, not to say helpful magazine; I'm always impressed by the layout.

John Linsie
Coventry

***8000* PLUS:** *I think you will find that our reviewer said that a disc which is over two years old 'is heading for possible problems.' After that, you shouldn't be surprised to see the odd gremlin rearing its head, although that's not to say that it necessarily will. Here in the 8000 Plus office, for example, we're still using some of the original discs that were shipped in for the launch of the magazine well over three years ago. They're still going strong. The most important point to remember is that you should be keeping back-ups of all your important discs – whatever their age.*

As far as aches and pains are concerned, ardent VDU operators are usually advised to take a half-hour break after every two hours' work. Similarly, it helps to be fairly sensible about how you've got everything positioned in relation to yourself.

The screen should be at least 70 cm from your eyes and the table on which you rest the keyboard should be low enough to allow you to place your wrists flat over the keys as you type. If your palms are brushing the lower edge of the keyboard, you're running the risk of developing something as unpleasant and debilitating as Repetitive Strain Injury or tenosynovitis (commonly known as typists' cramp.)

Biblical endeavours

Do you or your readers know of anyone who has put the text of the Bible on a PCW disc, allowing it to be searched for key words, etc. Several versions exist for the PC, in different bible translations, with concordances and other aids.

I am interested in a version I can use on my PCW 8512 or 9512.

Dr Peter E Childs
Limerick
Republic of Ireland

"VAST IMPROVEMENT ON THOSE TABLETS OF STONE"

***8000* PLUS:** *You may well be in luck – well, partially, at least. A company that specialises in PD software called Advantage (0242 224340) already has the entire King James Bible stored on 12 PC 51/4" discs as a series of ASCII files. Depending on file size, of course, this is roughly equivalent to six 3" double density PCW discs.*

Jeff Green tells us that his company can copy this version of the Bible onto PCW discs for you for a fee (all inclusive) of about £60 (£10 per disc). The only snag is that the Search programs that are currently available only work on the PC version: you would have to get a PCW one written specifically for you.

Play interrupted

I have bought the 'leisure software' for the board game Scrabble for use on my Amstrad PCW 9512. It runs satisfactorily in most respects, but the booklet with the floppy disc is unhelpful when it comes to saving a game in progress.

The booklet refers to resuming a game from a disc, but doesn't show how to store it in the first place. Can you help, as a phone call to Leisure Genius and Virgin Games has been to no avail? I am new to operating

the 9512, so any directions would need to be step-by-step.

Also, would you know how to add to the vocabulary on the original disc? The machine has challenged legitimate English words, like 'mosaics', 'exploit' and 'enduring', so presumably does not 'know' them; though the challenge may have been a fit of pique as I won the seven-letter bonus in each case. The program has produced some unlikely words of its own, including 'St' which is an abbreviation I thought was not permitted under the Scrabble rules.

David Browne
London

... Again!

I agree with your good advice to David Murphy in January's 8000 Plus about checking the compatibility of games before buying: I bought Virgin Leisure's Scrabble on the recommendation of your Good Software Guide and have been delighted with its standard.

I have some reservations about its suitability for 'all PCWs', though. The package labelling does include suitability for the PCW 9512 which I am using, but the instructions enclosed only refer to PCW 8256/8512. There is a facility for printing out the final board at the end of a game, and a game in progress can be saved to disc in order to resume it later.

Although I can get a perfect printout of the final board on our Star LC10 printer, attempts to save a game in progress simply result in the message 'File saving error.' This will be because the 9512 cannot write to an 8256 disc – but I cannot save a game onto my own formatted disc either. The original program disc is protected against copying for use as a working disc.

My enquiries to Virgin Leisure have brought no reply. Since I usually play against the computer and frequently have to leave a game in progress for several hours before I can resume, my husband's PCW 9512 is often tied up with Scrabble on the screen and unavailable to him. He keeps dropping hints about buying my own Joyce if this goes on.

Can anyone suggest a less expensive solution?

Marion Amos
Lytham
Lancashire

8000 PLUS: *Scrabble was originally written for the 8000 series machines only, simply because the 9512 had not, at that stage, been designed. A result of that is that the game is not entirely successful when run on the 9512: it can't, for example, save a game in progress. We've just spoken to John Martin at Virgin, however, and he informs us that a 'deluxe' Scrabble (to be fully operational on the 9512) will be 'hopefully' due for release sometime in the autumn.*

In the meantime, he is prepared to offer you a discount if this inability to save a game in progress is impairing your enjoyment of the game.

Unfortunately, it isn't possible to add to the existing Scrabble dictionary. Virgin informs us that it contains some 23,000 words and choices had to be made as to which words went in and which ones were omitted. What you can do, however, is override any challenges that the computer makes. Details concerning how to do this can be found in the manual.

'St' has been included in the Scrabble dictionary, not as an abbreviation to the word 'saint' but as a legitimate word in its own right. And, in fact, 20th Century Chambers – the official Scrabble reference at the time the program was devised – validates this as an interjectional word meaning 'Hush: a sound made to attract someone's attention.'

BASIC query

I always try the Listings given in 8000 Plus in the forlorn hope of improving my rudimentary knowledge of programming in BASIC. Sometimes they work for me and sometimes not. They can be guaranteed not to work if the program contains a line with the symbol ↑ in it; even LocoScript (with which I am writing this letter) won't print this higher up as it apparently should be.

An example is in line 340 of the Treasure Hunt program on page 71 of the December issue. My Mallard BASIC manual tells me that ↑ is obtained by pressing [EXTRA] and 7 and sure enough it appears on the screen, but it is not retained in the line and all I get when trying to run the program is the all too familiar syntax message. Also, I lose the cursor mark blob completely which makes editing very tiresome. Can you tell me what is going wrong, please?

D R Dicks
Falmouth
Cornwall

8000 PLUS: *It may, or may not be, of some consolation to you to know that there is a whole generation of BASIC users out there suffering from the same blight. In fact, whenever the offending symbol rears its head in our Listings pages, we can be sure that the 8000 Plus 'phone lines will be jammed for a few days.*

Whatever the Mallard BASIC manual does or doesn't say, the upward arrow is produced by pressing the [EXTRA] and the [U] keys simultaneously. This will allow you to successfully run the listing; it will appear on printout, however, as a large circumflex. Happy hunting!

Flagrante delicto

I am not really a computer buff but use my Amstrad as a convenient tool for writing. Erasing fluid manufacturers declared interim dividends before the days when I had a delete button!

I have, therefore, relied on your magazine to teach me the basics which I require and am now profoundly puzzled.

A couple of months ago I purchased from your Order Department a 3" Head Cleaning Kit – 'Protect your disc drive and ultimately your discs and data by regularly cleaning your PCW's drive with this head cleaning kit.'

In the December issue of 8000 Plus I now read in 'Keep It Clean' '... Amstrad firmly recommend that you don't try to clean your drives with any of the cleaning kits now available ...'

Which is right? Have I been 'ripped off' by you in buying a kit which is worse than useless or have I misinterpreted something?

Mrs Joyce Donald
Hitchin
Herts SG4 OLT

8000 PLUS: *Your confusion is well-justified, Mrs Donald. The 3" head cleaning kits to which you're referring made their appearance in our June special offers pages before we'd had a chance to sit down and try them out. We won't be putting them in again.*

In the hands of over-diligent users, these cleaning kits can be fatal. Under no circumstances would I advise anyone to use one regularly on their disc drives. These drives are, as we stated in the December article, the most fragile moving parts of the entire machine and can be very easily screwed up if handled clumsily. If you suspect that your drives are in any way in need of attention, get professional help.

Acute distress

Could you kindly assist in making my homework a little easier?

I use an Amstrad 8512 with LocoScript 1 for my Portuguese lessons. The acute, grave, tilde, circumflex and cedilla accents are available on the keyboard using [EXTRA] but how can I incorporate them into LocoScript?

Answer this problem for me and I will continue to say nice things about your maggy (hopefully in Portuguese).

Thanking you in anticipation of some help.

G Hamer
Lagoa, Portugal

8000 PLUS: *If you turn to page 10 of your LocoScript manual, you'll see which key combinations produce which accents. It's then a simple case of incorporating them into your LocoScript 1 documents – as you can see on the screenshot below!*

Speedy delivery

These days it is usual to read complaints published about the service advertisers give.

Let's redress the balance.

I have twice ordered items by mail order from Silicon City's advert in your magazine. Twice I have received the goods within 38 hours. Such service deserves a mention.

M J Bickerton
Stevenage
Herts.

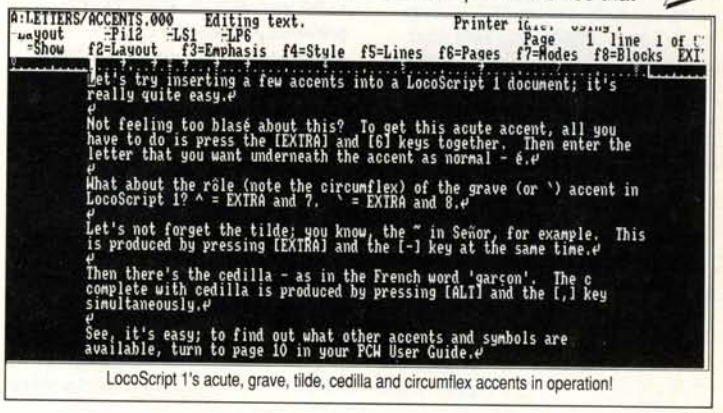
PS. I suppose you will take some of the credit now by claiming to have such excellent advertisers! In which case, I can also claim some of the credit since I have been a reader since the magazine's first issue.

8000 PLUS: *Can't say fairer than that!*

Heavy emphasis

As a regular reader of 8000 Plus, I am appealing to you for help with what is probably a small problem with the printout from the unit supplied with my Amstrad 8256.

Last weekend I installed LocoScript 2 and since that



LocoScript 1's acute, grave, tilde, cedilla and circumflex accents in operation!

time I have been unable to print decent copies of work; they all have a double line of dashes running through the text, whether on NLQ or draft. In desperation, I returned to LocoScript 1 but the fault still exists, so I'm unable to print anything I have worked on.

I have tried every combination of keys imaginable in the hope that I would clear it but to no avail.

I have attached a small sample of the kind of print-out that I get in the hope that it may assist.

Please help if you can. I am reduced to reading the articles in your splendid magazine and marvellous though they are, they are no substitute for the real thing.

EJF White
Bembridge

***8000* PLUS:** *We've had a number of letters describing much the same problem recently. It sounds very much like a memory fault which more frequently manifests itself as a single line of dashes obscuring the bottom third of all the characters on printout. Putting this right will involve locating the faulty memory chip and replacing it, an exercise that is not particularly costly but one which may involve recruiting skilled professional help.*

Referential treatment

May I put in a good word for Mr Digby L James of Mapej who wrote to you somewhat plaintively in the January issue asking for a fair mention of his disc transfer service?

For some time now, I have written the stories and features for the employee newspaper of one of Britain's major industrial companies, presenting them with hard copy which was then put out to a computer setting agency before page layout by a design studio.

As a cost-cutting exercise, the company invested in its own IBM computer setting equipment, into which it was planned to scan my hard copy. Panic ensued when the scanning failed to work!

After trying a number of disc transfer services who failed to display any interest when I admitted I knew nothing of the technology (I used my 8256 purely as a writing tool), I tried Mapej. The lady who answered the phone (Mrs. James?) also admitted (refreshingly) that she was a technology ignoramus too, but said that if I explained what I wanted, she was sure Mr James would solve the problem.

And he did. I received the transfer to a 3.5" disc within three days. My client tells me it worked perfectly – and Mapej now has another permanent customer.

Peter Newman
Banbury
Oxfordshire

***8000* PLUS:** *As one of our regular advertisers, I'm sure that Mr Digby will be more than delighted with your testimonial.*

Streamlined organisation

Shame on you for only giving Streamline BASIC 17 out of 20! I think the score should be well over this – somewhere near 22 out of 20! I agree that it is a pity there is no index ... but why not improvise? I have made myself an index for this excellent book. If anyone would like a copy of the index, they can send me a stamped, addressed envelope, together with two 15p stamps to cover photocopying – and I will send them a copy.

I've had my copy of Streamline BASIC for about a week and haven't stopped reading it since.

Daniel Evans
Putney
London

***8000* PLUS:** *Tim Smith's criticism, relatively minor though it is, concerning the lack of an index is still, in my opinion, a valid one. There are a lot of people out there, unlike yourself, who haven't got the time to sit down and compose their own indices, an activity that is only marginally more stimulating than watching paint dry. And let's face it, it's a pretty comprehensive book, packed with information. I'm sure they will be only too willing to take you up on your offer.*

Smooth operator

With reference to the letter from V Battenti in issue number 40, I can only suppose that he hasn't found the on/off switch of his 9512, or did not get a copy of the manual with it!

My wife and I bought a 9512 a couple of months ago; neither of us had much experience of word processing or computers, but within an hour of opening the box, we were producing letters, and after a couple of hours we could produce very easily reports, minutes, etc. The User Instructions supplied with the 9512 seem to me to be well written, assume no previous knowledge of WP systems, and require only a bit of common sense and an enquiring mind in order for the buyer to use the machine.

I have no commercial interest in making this 'plug' for Amstrad, but I would hate for any aspiring word processor owner to read V Battenti's letter and be put off buying what is a very user-friendly system.

Malcolm Beet
Stoney Middleton
Derbyshire

***8000* PLUS:** *I don't think it's always quite as simple as that, Mr Beet. When making the first tentative steps in the process of getting to grips with something new, sometimes it's good to feel the support of other people around you who are in exactly the same boat. This is precisely the advantage that organised training sessions bring. The manual that comes with the PCW is, as you've pointed out, a very good one. But there's nothing wrong with consolidating that information by attending regular training sessions – especially when you consider that most PCW users are probably only using a small percentage of their machines' overall potential anyway. Learning then becomes a fun, social activity as beginners get together, swap notes and help each other out. Knowledge does not have to be more complete because it's acquired in isolation.*

Swift commands

Reading George Bridge's review of disc sector editors, I'd like to comment on his description of DU.COM, which is one of the most rewarding utilities you could have on your disc.

He called the command line 'cumbersome' but after an hour or so's use it's quite the opposite. The commands are short – often just a single letter. The ability to string commands together means, for instance, that you can set up a string (d;+;/) that will walk you through the code of any file. It's one of the most relaxed nosing about facilities available in any program at any price.

He made a lot of the inability to edit the command line, but if you go wrong you can get out of it at any time by going [ALT]-U. Command lines are so short that it's then no hardship to start again.

This trick is not in the documentation, which shows that George Bridge was certainly right about that – it's lousy. But there's plenty to get you going after a bit of playing about and I feel he did less than justice to a truly great program.

Finally, I do like 8000 Plus. It's nicely laid out, and feels solid. It's also good for me to read about the weird complications of LocoScript. It makes me feel so smug about using Protext. Thank you.

Peter Ceresole
London

***8000* PLUS:** *Unfortunately, Mr Ceresole, it's never our intention to make our readers feel smug – just informed! But thanks for your support.*

Seeing the light

Just before Christmas, I had a recurrence of an annoying 'disappearance' of all the files from the drive B disc of my 8512, as I was about to print out the latest. That is, the file list on the disc management screen vanished. This had happened twice before over the past year, but I had resisted suggestions to get the drive seen to, being unwilling to pay a considerable sum for something that did not occur very often.

I thought on this last occasion that it might be the disc corrupting and hastened to transfer the new files from Drive M to my back-up disc and complete printing. Then I found after two attempts at replacing it and using [f7], that the disc in question showed signs of life and the disc drive appeared to be working normally once more.

Then I realised that I 'lost' Drive B only in the winter or in the evening when using my anglepoise lamp to illuminate the keyboard.

I remembered a letter from someone who had a similar experience when he tried to use his PCW in the garden. Another mentioned the effect of light straying into the PCW housing and playing havoc with the drives.

This seemed to be the answer; on the occasions when I 'lost' the document, I had swivelled my lamp round to illuminate the printer on top of the PCW, with the 60 watt bulb playing straight down on the drive housing a few inches away.

I wonder if any of your readers have had a similar experience?

Neville Collins
Hammersmith
London

***8000* PLUS:** *Hmmm. Curioser and curiouser. I don't know about 'seeing the light'. The answer would appear to lie quite firmly in staying in the dark – and cultivating some nifty touch-typing skills.*

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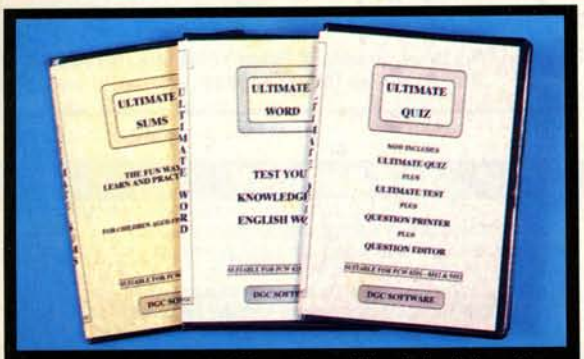


DGA's Ultimate Quiz, Word and Sums: they could be winging their way to you

This month's competition gives you the opportunity to cash in on the best kind of learning for you and your kids – the type that combines education with fun. David Greenhough Computing has kindly donated four packs of a selection of educational software for the lucky winners of our February competition.

Each pack, as pictured, will consist of upgraded versions of Ultimate Word, Ultimate Sums and, finally, Ultimate Quiz. If this last one sounds particularly familiar, that's because it's the fun-for-all-the-family multiple choice quiz program that received favourable reviews in our December issue.

As for Ultimate Word and Ultimate Sums, well they've always been at the forefront of PCW educational software. The first is a program which allows you to test your knowledge of English words by either consulting the large supplied dictionary or even by creating your own.

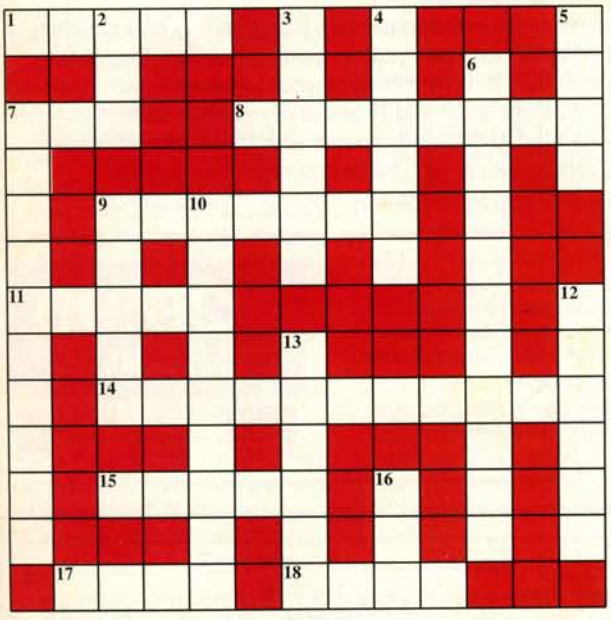
Ultimate Sums, on the other hand, will be suitable for all kids between the ages of five and fifteen, provides up to eight different kinds of sums each of which can be negotiated at one of eight different levels of difficulty. As with Ultimate Quiz, up to eight players can use the program at one time and an optional score sheet is included just to put a little edge on the competition!

So what do you have to do? Well, in response to a growing number of reader requests to heighten the challenge of our monthly competitions, the LocoScript-generated crossword below comes to you courtesy of Mrs Ann Lisle from Gateshead. As Ann herself comments, 'Like all good crosswords, the answers are a mixture of anagrams, word puzzles and (in true 8000 Plus tradition) awful puns.'

Yes, well, thank you for that, Anne, you'll be hearing from us later. As for the rest of you, the brains behind the first four correctly answered crosswords to be drawn from the hat are in for some serious education. All answers on the back of a postcard, please, to Crossword Competition, 8000 Plus, Beauford Court, 30 Monmouth Street, Bath BA1 2AP – no later than the 1st of March.

Across

1 Communicatively speaking, a poem in thousands (5)
7 Place on the green (3)
8 You'll use it for a stew (8)
9 A dolphin of a program (7)
11 Command 6 down to do this (5)
14 You might do this when making the bed (11)
15 and 16 down. An unearthly place to go for a pint (5,3)
17 Sounds like a tasty morsel (4)
18 Kind of database function (4)



Down

2 and 12. If you do trim tax, it will 11 across (3,6)
3 A lolloping disc (6)
4 Publishing company which doesn't live in the past (6)
5 Keep back (4)
6 Would you find them on a bicycle built for two? (11)
7. For an addition, rip her in the sound of bells (10)
9 9 across does this (5)
10 What nicer fate for a link? (9)
12 See 2 down
13 Girl around the Queen will also 11 across
16 See 15 across

Next month

Sprechen Sie Deutsch?

With 1992 looming ever closer, there's no point in all you linguaphobes out there continuing to bury your heads in the sand. With the recent launch of a Unique Language Learning Program for the PCW, we'll be taking a look at the French, German, Italian and Spanish language-teaching software that has been specifically written for business use.

Verran AC Datalink

Hailed, somewhat intriguingly, by its manufacturers as 'the computer product of the 90's', 8000 Plus will be testing out a datalink which, they say, will allow you to link either PCW to PCW, PCW to peripheral device or peripheral to peripheral – such as a printer or modem – without the hassle of expensive, not to mention, messy cabling.

Word Processors

8000 Plus devotes a fair few of its pages every month to the joys of LocoScript and Protext – but what about all those other word processing alternatives for your PCW? We'll be looking at the strengths and weaknesses of other, much-neglected WP packages with the help of the readers who use them.

Thriller!

Ghosties, ghoulies, long-legged beasties and things that go bump in the night are only half the story when it comes to being a successful writer of horror fiction. Chris Westwood will be showing you how to take your readers to the limits of suspense – and keep them there.

Chart Toppers

And just to prove that we're not averse to a little bit of self-indulgence every now and again in the 8000 Plus office, our own intrepid adventurer, Tim Smith, is going to be looking at his favourite ten games for the PCW.

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There are 64 pages describing a complete range of IBM PC (and compatible) software, plus an expanded section covering the best of the PCW software.

Accounts, wordprocessing, database and graphics are all covered.

Check and see if your local software stockist has the ***New Star*** catalogue available - and if not, ask them to get some in, but don't delay before getting your free copy! ❑

NewStar Software: *Original and best*

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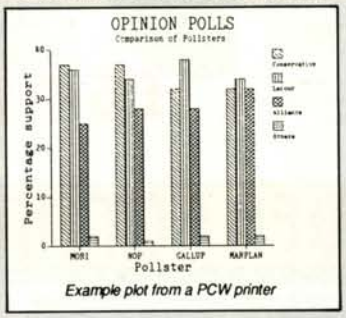

Example plot from a PCW printer

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